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The Journal of Cutaneous Diseases

INCLUDING SYPHILIS

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NO. 1

CONGENITAL ALOPECIA AS AN EXPRESSION OF ATAVISM

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UNDER the several titles, Alopecia, Congenita, Hypotrichiasis, Universal Congenital Atrichia, and Congenital Alopecia Areata, have been described a group of rare cases in which the symptoms, presumably originating from different causes, have presented a suggestive similarity. The obscurity, however, in which the origin and later history of total absence, or scanty growth, of hair at birth have been shrouded, is noted by several writers. The following named conditions are those chiefly to which attention has been directed in the consideration of this subject:

(1) Complete and universal absence of hair at birth, not succeeded later in life by a pilary growth. This is believed to be an intra-uterine atrichia due to failure of development of the hair-pouches.

(2) Universal congenital hypotrichiasis, in which at birth hairs exist in all regions of the body, but later fail to be succeeded by filaments normal in length, vigor, color, and texture. Two sub-varieties of this condition have been recognized:

(a) The infant at birth is provided with the relatively long hair of most normal infants. This in due time falls and is replaced by a scanty down which later in life fails to ensure a normal hirsuteness of the scalp.

(b) After birth the infant fails to lose the temporary hair of the scalp which persists but later develops merely a scanty or ill developed pilary growth.

(3) Complete or partial absence of hair at birth in definitely circumscribed regions, such as the scalp, the brows, the pubes, or the axillæ.

Read at the 32d Annual Meeting of the American Dermatological Association, Annapolis, Maryland, September 24, 1908.

Dubreuilh and Petges distinguish between the following forms of circumscribed congenital alopecia:

(A) Circumscribed nævic congenital alopecia, including cases where nævus lesions develop on plaques of alopecia; cases where a nævus in process of involution leaves its relics on a similar plaque; and cases where, either in the immediate vicinity of, or in actual continuity with, a patch of alopecia, a circumscribed nævus develops. In all cases there is an irregularly round or oval patch slightly projecting, often mamelonnated, at times darkly pigmented, and covered with a fine growth of downy hairs.

(B) Circumscribed congenital alopecia due to arrested development of the skin in which the plaques are small and situated near the posterior fontanelle, over the occiput, or over or near the median line; no downy hair is present nor are there evidences of cicatrix or atrophy.

(C) "Obstetrical" alopecia characterized by irregularities of the zone affected with alopecia. The form of the patch is variable, the skin somewhat thin, unprovided with down, and exhibiting no cicatrix. The patch is relatively large and situated on the frontal or fronto-parietal regions. These cases are supposed to be due to the action of the obstetrical forceps.

(D) "Sutural" alopecia due to the enlargement of the cranial vault prior to the union of the fontanelles (hydrocephalus, etc.), the patches occurring in the region of the sutures, with adhesion to the deeper parts and irregular growth of hairs, few in number and disposed without order.

(4) Generalized or circumscribed absence of hair at birth, followed in later life by a normal hair-development. This condition is believed by writers to be due to pre-existing intra-uterine disease, or to such a disease seriously involving the hair-pouches at birth, resulting in a true alopecia, evidences of which may be wanting at the date of first examination by the physician. Thus some cases of congenital hair-absence are recorded as due to alopecia arcata, to intra-uterine nervous shock, etc.

(5) Cases in which one or all of the anomalies cited above co-exist with anomalous conditions recognized in the teeth, nails, and other organs.

Under the title, Congenital Dyskeratoses, Lenglet has grouped many of the disorders named above and others (fœtal ichthyosis, congenital ichthyosiform erythrodermia, palmar and plantar keratodermia, circumscribed and generalized atrophies, etc) affecting

what the French call the *phanères* of the integument. The types which for purposes of classification he has sought to establish, are chiefly distinguished by the behavior of the epitrichial layer after the birth of the infant; the layer in some cases, after abnormal persistence, seeming to assume a species of pseudo-autonomy; in other cases retaining a close relation to the deeper integumentary structure and profoundly influencing its evolution.

During the last twenty years, the clinical records of my associates and myself in both public and private practice have included a series of cases of congenital alopecia. In no one of these patients has the congenital absence of hair been absolutely complete. A patient most nearly presenting such an anomaly was exhibited at the Clinic in the year 1893. The subject was a female child, two and a half years old, which on first inspection seemed to be wholly destitute of hair. Careful scrutiny with a lens, however, detected over the scalp surface a very few points where slender downy hairs were produced in fine wisps. The larger number of cases coming under our observation have been those of patients who, from the hour of birth, exhibited either an exceedingly restricted area of hair-growth or, what was more common, a growth of hair duly covering the normal areas, the pilary filaments, none the less, being markedly deficient in length, vigor, and texture. (Fig. 1.)

Subjoined are notes of the case of a patient recently presented, where the departure from the normal standard lay along the line of a wider divergence from type than is commonly recognized:

E. K., male, fourteen years of age, was presented by his parents for examination in June, 1908. The following data were communicated respecting his family history: his father's father, aged 71, is living in sound health; his father's mother died of paralysis in her seventy-first year; he has two uncles living in good health; one of these last is the father of three children; he has also an aunt now living, in good health, the mother of a child.

On the mother's side, a grandmother is living, aged 68; two uncles are living, none dead; one maternal aunt living is the mother of two healthy children. The mother's father died of tuberculosis in the thirty-second year of his life. No member of the family is known to have exhibited any abnormal features at birth. There have been no intermarriages.

On physical inspection, the patient is found to present in general the usual aspect of bodily health. In the matter of nu-

trition, weight, stature, organs of sense, and muscular development, he is in correspondence with the average youth of his age. His mental attainments are in no degree at fault. He has advanced with success to the second year of high school study. Puberty has been safely reached. The genitalia exhibit no signs of infantilism. The general hue of the patient's skin is that of health, though the integument is the seat of a mild xerosis, most conspicuous over the face. Here and there over the surface of the body, in the regions where such phenomena are usually best declared, can be recognized a moderate degree of keratosis of the pilaris type.

The scalp is normal in color and texture and is completely covered with scanty, short, stiff hairs pointed at the extremity and nonpigmented, averaging not more than a centimètre in length. This condition, without appreciable change, has existed since birth. A few dark-tinted hairs are visible at the inner margin of the brows. Similarly, a few scattered lashes can be recognized along the edges of the lids. There are no traces of a beard. Some rudimentary and lanugo hairs may be found at various points over the trunk and limbs.

The teeth are normal in number and color, though unusually separated, small, and notably peg-shaped. The frenum of the upper lip extends below the inferior border of the gum and is brought down between the separated central incisors.

The finger-nails are convexly curved to the point of exaggeration from side to side, and the nail-beds are readily exsanguinated under pressure. The toe-nails are distinctly thickened and transversally ridged.

Between the first and second fingers, as also between the third and fourth fingers of both hands, is stretched a web which extends from the line of the metacarpo-phalangeal articulations about half-way to the distal extremities of the involved digits. These webs are constituted of skin and connective tissue. The second and third toes of both feet are united by a similar web which, however, in these organs practically extends throughout the length of the digits, with the effect of welding each couple into a single organ. A similar web, but not extending to a greater length than those between the webbed fingers, stretches between the third and fourth toes of both feet. Skiagraphic examination of the webs of both feet and hands gives negative results.

An exostosis, of the size of an English walnut, springs from the external and posterior face of the os calcis of the left foot. A first

examination suggests that there has been a line of cleavage between the tuberosity of the calcaneum and its anterior portion supporting the astragalus.

There is moderate and symmetrical enlargement of the thyroid gland. The pulse is 120 to the minute; but there is no exophthalmos; no tremor; and the Romberg test gives negative results.

I am indebted to Dr. James MacFarlane Winfield, of Brooklyn, for the following details respecting the similar condition of a patient under his observation:

"In 1899 Mr. A. C., age 35, consulted me for an eczematous condition of the skin of the flexor surfaces of the extremities, the inflammation being more marked about the elbows and knees. He stated that his skin had always given him trouble on account of "dryness" and when irritated, as by overheating or the presence of woolen under-clothing, he would be apt to have an eczematous outbreak. A condition of xerodermia had existed since birth. The patient only perspired in very hot weather and in the Turkish bath.

"S. P. The hairy development is markedly imperfect, there being none on the arms and legs, and only a few feeble lanugo hairs over the pubes and axillæ. Although the patient states that he is obliged to shave once or twice a week, upon the closest inspection, no hairs can be seen on the face, the hair is so fine and light colored. The hair of the head is a fine and sparse lanugo, the scalp is covered but the hair grows slowly. The head resembles that of a six months old infant with slow hairy development. His mother states that at birth the scalp was covered with a fine down, which soon fell—he remained completely bald until he was between seven and eight years old; then a few hairs grew on the scalp; at puberty the hairs developed merely to the condition described above. The first dentition was delayed until he was between three and four years of age; and when the teeth came in they were "small and weak," dropping out and decaying before he was ten years old. The second dentition was normal as to time of eruption. He still has all of his teeth although some of them have been filled. They are peg-shaped and with large spaces between each tooth, resembling the setting of a dog's teeth.

"He is very myopic, being obliged to wear the strongest glasses obtainable: even thus his vision is very imperfect.

"The middle, ring, and little fingers of both hands are joined with a web, the webbing extends up to the distal joint. The toes

are similarly webbed. The finger and toe-nails are thin and friable. His ears are small and misshapen (no lobes).

“ His general health has always been good: mentality unimpaired. There is no record of degeneracy in the ancestors of either parent; though his mother has a mild grade of xerodermia.”

Surveying the records of cases described as Congenital Alopecia, it is evident that the anomaly is rare, even in the list of rare anomalies of the skin and its appendages; and also, of still greater rarity when evidenced by an absolute and general failure of pilary development at birth, persisting through life. Many of the published observations of this anomaly are lacking in details of special importance. Dentists and dental surgeons seem to have given scanty attention to the condition of the hair and nails: the general practitioner, on the other hand, has often neglected to describe the dental condition. Of fifty-six records of so-called congenital alopecia, where the sex of the subject is given, it appears that thirty-eight were males and eighteen females, data which would seem to indicate that the hair of the scalp, even in female infants, acknowledge a sexual influence. Alterations of the nails are reported rather less often than changes in the teeth, but for reasons named above, the conclusions are not trustworthy.

From the observations heretofore published, it is made clear, however, that the absence of hair may be limited to one, several, or all regions of the body, including the scalp, brows, beard, axillæ, pubes, and the surface normally covered with lanugo. The “complete and absolute” cases, of the sort described by Eshner, Schede and Ziegler, as also that of the negro photographed for Crocker, are extreme divergencies from the average and may be due either to non-development of the hair-pouches or to the intra-uterine atrophy assumed by some authors to explain the result.

The Australian races described as hairless, seem to be groups of aborigines of that country, some members of which only are completely destitute of hair. It is worthy of note that among the cases on record there are not a few subjects of the anomaly in whom there has been improvement of the condition of the hairs under an appropriate therapy.

In the records of congenital alopecia, individuals are cited, not only of one family, but of generations of a single family, who have been similarly affected. I have published the details of the case of a female child, six and one half years of age, being the

third of six children affected with hypotrichiasis. In not a few instances, father and child, mother and child, maternal grandmother and uncle, cousins-german, and other near or but slightly removed relatives of the subjects of the anomaly, have exhibited both natal and post-natal hypotrichiasis. Notable in this connection is the history detailed by Nicolle and Halipré, where congenital alopecia affected in six generations, thirty-six individuals. It is clear, however, not merely from the family history described, but also from others, on record, that atrichia and hypotrichia, in various grades, may affect one individual where no evidence exists that any other member of the family for generations has similarly suffered.

Apparently the most common of coincident anomalies, in cases of congenital alopecia, are changes in the teeth and nails. Kingsbury calls attention to a possible connection between the normal dehiscence of the long hair of the infant at birth, and the fall of the milk teeth, as if both processes were obedient to one law. In some of the lower vertebrata, certain kinds of fishes for example, the teeth are shed in a succession as regular as that observed in human hair.

When defects of pilary development in the human family are noted at birth, the teeth which are erupted later may be changed in gradations from the condition in which few, defective, oddly arranged or shaped, or doubly ranked teeth are developed, to the point of complete edentulism. It is interesting to note that when but three or four teeth are reported as present, these are usually molars or pre-molars of the lower jaw, the incisors and canines being often absent. The stress of reversion seems to be first declared in the organs earliest to develop under normal conditions. If this be the law, it holds good only for organs originating from the epiblast, as the reverse seems to be the rule when the meso-blast has participated in the genesis of the part. In several types of edentulism, as in the subjects of defect of hair at birth, a family predisposition to such anomalies can often be determined.

Other abnormal conditions associated with atrichia and hypotrichiasis are found in those who have abolished or defective secretions; who do not sweat; who shed no tears; who have absence of or impaired sense of smell and taste; and who are not provided with mammary glands. In a case of congenital hypotrichosis, Ziegler found blind sebaceous and coil-gland ducts with erector-pili muscles but no hair-papillæ.

The most of the subjects of this anomaly seem to have been

exempt from inflammatory changes in the tissues which depart from the normal in any region of the body. It is recorded in a few observations that onychitis and infective processes of the nail had been recognized: in others a progressive atrophy of the scalp and nail-matrix had occurred. Both the subjects of the anomaly and their progenitors are repeatedly reported as the victims of alopecia areata, and this with recurrent attacks. Wende's patient had atrophy of the finger-tips and hereditary epidermolysis bullosa: Guilford's and Luce's suffered from xeroderma: Aubry's from an hydrocephalus, the consequent disorder having been attributed to the pressure along the fontanelles.

Anomalies of the eyes are apparently among the rarest of phenomena associated with natal and post-natal hair-defect. Eshner reports the case of a man sixty-four years of age, who after birth had been hairless in all parts of the body, the nails of whose fingers and toes were faultily developed and transversally ridged. In this case there were numerous mosaic-like areas of whitish masses in the retina, believed to be a consequence of retinitis albicans. The teeth were presumably involved, though the age of the subject and a history of some fallen teeth made the dental history obscure. MacNoughton Jones and Ringrose Atkins report the case of a boy who never had had more than a light down on the face and the region of the beard. The teeth were ridged, discolored, and separated; the finger-nails were aborted and furrowed. The patient suffered from disorder of the eyes. In June, 1905, a female child of Jewish parentage, three years of age, was brought to me from Michigan whose case falls in the second category of the class described above, and in the first of the variations named. At birth, the scalp of this child had been covered with normal hair. In one month this fell leaving a completely denuded surface which had never since been the seat of a pilary growth. On examination the scalp was found to be smooth, firm, glistening, and destitute of hair save over two or three points where downy filaments could be recognized with a lens. The nails of the hands and feet were seriously changed, being both ridged and discolored. Dr. Harper, of Chicago, was good enough to examine the eyes of this patient for me and he reported the presence of opaque patches in the retina. There was no history of family anomalies. One child of the same parents had died of nasal hæmorrhage. Dr. Winfield's patient evidently suffered from some visual defect.

These four cases and one which is referred to later in this

contribution to the general subject (a record of ocular symptoms co-existing with polydactylism), though few in number, challenge enquiry. The hypothesis that the retinal patches recognized in Eshner's and my cases were due to a pre-existing inflammatory process, seems less reasonable than the possibility that the ocular globes shared in the diversion from type, recognized in the scalp and hands. I am indebted to Dr. Casey A. Wood for the suggestion that the retinal plaques, recognized in these cases, are "brushes," or areas of opaque nerve fibre, seeing that in the lower mammalia this condition is not only exceedingly common but normal. In fishes, birds, and the lower mammals, the opaque nerve fibres are exhibited in white or whitish areas, or in feathery distributions, or in other forms none of which occurs in the normal eye of man. Is there not here as in hypotrichiasis and edentulism, a reversion to the type of the mammal leading in part a sub-aqueous existence, whose eyes as is well known, are designed for vision beneath the surface of water, and therefore are provided with a thickened sclerotica projected forward along the orbital axis with the retinal tissue proportionately reduced?

According to Prof. Owen, in the descent from the higher to the lower type of mammalia, the thumb and great toe gradually become rudimentary, and the little finger and little toe, unimportant with respect to the chief function of both fore and hind extremities; while next in order of importance, are ranged the second and fourth digits. In comparative anatomy, the primacy of the hand and foot rests with the middle finger and middle toe, their adjuvants projected on either side. For example, the horse, as all anatomists know, walks on his third finger and third toe; the ox on a combination of the third and fourth. In the foot shown in the photograph, a distinct reversion to type is betrayed in the relative shortness of the big toe and the marked projection of the member composed of the fused second and third toes which furnishes the chief support of the foot in advance of the line of metatarsals.

It is an interesting fact of pathology that divergence from the normal, in the direction of both excess and defect, may be coincident or successive. The deeply pigmented skin of the negro most often furnishes the pure type of the albino; in both sexes hypertrichosis of the face is often coincident with forms of alopecia of the hairy scalp; Kingsbury calls attention to the fact that general hirsuties may be accompanied by defective dentition; and similarly the subjects of syndactylism may also exhibit polydactylism in

various types. Here also, in certain cases, a family predisposition to such defects can be recognized. A female child was shown to me in June of the current year having a rudimentary sixth digit on each hand and foot, the father and grandfather being reported as similarly departing from the normal.

After a somewhat careful search I have been unable to discover reference to cases, save as here reported, of co-existence of congenital alopecia with syndactylism. In the voluminous literature accumulated on the subject of syndactylism and polydactylism, it is apparent, first, that the two deformities frequently co-exist in one individual; second, that the larger number of contributors have been concerned chiefly with the surgical management of the webs and of the supernumerary digits. When there is co-existence of structural anomalies, as a rule only those organs are involved which comparative embryology has demonstrated to be related in their genesis. Yet Parham reports a case of polydactylism in which there were coincident changes in the pupil. Apparently no ophthalmoscopic examination was made. There was also absence of testes, hypospadias, and thickening of the maxillary bones. On the other hand it is noteworthy that the general health of most of the subjects of congenital alopecia is unimpaired. The genital organs, as in the subject of the anomalies here reported, are commonly not abnormal. Atkinson's patient, destitute of the sense of smell and taste, was completely edentulous, yet was the father of eight children, two of them edentulous girls. S. H. Guilford's patient, forty-eight years of age, had a scalp covered with fine down, no teeth, defective smell and taste, did not sweat, and was the father of eight children, some edentulous. Beauvais, Rayer's patient, is said to have contracted syphilis twice.

Respecting the grade of syndactylism shown in the photograph, the webs seen in the hand are less extensive than those uniting the digits of the feet, though in both sets of organs these were firmer and more voluminous than in many cases of syndactylism where the uniting membrane is thin and composed chiefly of the elements of the epidermis. In the present case, the webbing of the toes was sufficient to produce a firm fusion of the attached digits.

Aside from the abnormal features enumerated, it may be set down that the thyroid enlargement in this case was scarcely sufficient to constitute a distinctly morbid symptom in a young subject at the puberal epoch. The separated, pointed and relatively small-sized teeth were, however, as in Winfield's patient, significant. The bone

tumor of the calcaneum seemed to be limited to one side of the body. Skiagraphic observation of the corresponding foot gave negative results.

The group of congenital anomalies represented by *nævi* of various types, by ichthyotic and other cutaneous keratoses, by verrucous lesions, and by alterations of the hair, nails, and teeth, are obviously developmental diversions from the normal, originating in structures derived from the epiblast of the germinal cell membrane. Few of them are of a character sufficient to threaten life or to seriously interfere with much else than cosmetic conditions. Whether these, all or singular, are in the line of a reversion to a lower type of organism as the result of a purely aberrant or degenerative process, is not difficult to determine. The so-called "freaks of nature" collected in pathological museums and represented in the experience of clinicians, are not diversions at random from the type of normal genesis and growth, but are known to obey laws as definitely formulated as those regulating karyokinesis and phagocytosis.

While the structures derived from the epiblast of the blastosphere, the hair, nails, and organs of special sense, are those chiefly concerned in the anomalies coincident at birth with hair-defect, a fact to be considered as of importance in this connection is that both the epiblast and the mesoblast concur in some of the evolutionary processes of the body, as, for example, when the extremities first bud as outgrowths from the lateral parts of the embryo, the muscular and skeletal structures being thus developed. In most of the animals furnished with articulated extremities, the fore- are produced before the hind limbs. This possibly explains, in such anomalies as those under discussion, the incomplete degree of webbing of the fingers as contrasted with the well nigh complete union of some of the digits of the feet, the point of time of developmental interference, if such a term be permissible, determining the grade of the deformity. Syndactylism is much more common in the feet than in the hands. In other words, within certain limits, the later the divergence from the normal, the greater the chance that the organs derived from the epiblast and mesoblast will be involved; and, given the co-operation of the two in the evolution of the body, the anterior extremities will presumably be more fully developed and more exempt from anomaly than the posterior.

Comparative embryologists are not yet in agreement as to whether the pentadactylous limb is derived from the piscine fin, but

there are strong arguments in favor of such a position. During its placental relations, the human fœtus leads an exclusively sub-aqueous existence. No violence is done to the laws of embryonic development, whether normal or perverted, in viewing the co-existence of the group of anomalies herein considered, as a reversion to type of some partially aquatic animal. The primordial unit should have been found among the amphibious mammalia, and have been provided with an integument either covered with scales or with short, stiff hairs; should have seized its prey with few pointed incisor and molar teeth, the latter at least to the number of three or four in the lower jaw, though these may have been wholly wanting; and should have propelled itself, whether on water or land, with fully webbed pentadactyloid paws on the hind limbs, these organs having been developed originally from the piscine fin.

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FIG. 1. CONGENITAL HYPOTRICHIASIS.

Patient aged six years: Duration of disease, since birth. Family history, negative. There is, in addition, a moderate Keratosis Pilaris of scalp, neck, and trunk.



FIG. 2.



FIG. 3.



FIG. 4.

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A STUDY OF ACNITIS WITH REPORT OF AN EXTENSIVE CASE.

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SYNONYMS: Acne agminata (Crocker); Acne telangiectodes (Kaposi); Disseminated follicular lupus (Tilbury Fox); Hydradenitis destruens suppurativa (Pollitzer).

In 1891 Barthélemy (Barthélemy, *Annales de Dermat. et Syph.*, 1891, p. 1) published three cases of a peculiar affection to which he gave the designation "acnitis." As Crocker points out, this is probably the same disease as that described by Tilbury Fox in 1878 under the title of "Disseminated Follicular Lupus."

Brief references to the cases thus far observed are herewith presented. The general features of the affection will be set forth later.

Barthélemy's Cases.

Case 1. Male, age 23; patient is large and of robust constitution; has never been ill. No scrofula in infancy; no syphilis; no rheumatism. Disease began four months ago. The face, the head and a part of the body is covered with pimples, as if the patient had had a very abundant acne, or even the small-pox of medium intensity. After a very "vive contrariété" in the course of good health, without appreciable cause and without any departure from regimen, this man developed first upon the forehead and then on the face, the scalp, and the neck, small, elevated and firm reddish pimples. The onset of the eruption was quite sudden. The patient first noticed about a dozen pimples upon the forehead. During the first few days he had slight fever. Since the first appearance the eruption has continued to develop in crops, the patient observing five or six new nodules on the skin each day. The patient is pale, and might be considered lymphatic; he presents no scars of cutaneous scrofula. Auto-inoculation gave negative results.

Case 2. Male, age, 27 years old; moderately vigorous; rather small and pale; had rheumatism from the age of 16 to 24; the

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wrist is chronically enlarged. Some digestive trouble; constipation; loss of appetite or capricious appetite. There is dilatation of the stomach. Without appreciable cause, the eruption appeared quite suddenly. There are on the face from 120 to 150 pimples at the time of examination. The eruption is partly present on the forehead, eyebrows and scalp. On an average, the duration of each element is about a month: 10 to 12 days during which the subcutaneous nodosity forms; 3 to 4 days of suppuration, and about a dozen days for the pus to harden, dry, and fall. The eruption appears in successive crops. Latterly, some of the lesions have disappeared by resolution with suppuration. After nine months the affection is dying out, but it is not yet completely cured.

Case 3. Male, age 27, coachman; in the spring he looked after a horse which had an eruption of pimples upon it, said to be non-contagious by a veterinary surgeon, and which was cured by glycerine "laudanissé." Patient is in good health; has a good digestion, although there is a distinct splashing symptomatic of pronounced dilatation of the stomach. Has never had acne. In the course of good health he was suddenly attacked with the eruption for which he sought advice. Lesions began under the nose and on the chin; successive crops on the forehead, cheeks and scalp. Having lasted ten months, the eruption practically disappeared. At the time when the eruption attained its maximum intensity, the patient was fatigued and anæmic; his appetite was not good. This patient appeared to be benefited by the use of salol, although this medicament was given after the eruption had existed nine months.

Tilbury Fox in 1878 (*Tilbury Fox, Lancet*, 1878, pages 35 and 75) published reports of three cases of "disseminated follicular lupus," which suggest in many respects Barthélemy's acnitis.

Case 1. Female, age 28; duration of disease, four years. Patient was "threatened with phthisis at age of 17." She is delicate, has lost weight; suffers from poor appetite and disordered menstruation. The eruption is limited to the face and is made up of "separate disseminated, dullish-red-brown, indolent nodules, varying in size from a pinhead to a large millet seed."

Case 2. Female, age 17. Patient delicate; always chilly, with bad chilblains; suffers from mental depression. No constipation in the family. Has copious acneiform eruption on face; long treatment without avail. Outbreak began three years ago. When first seen by Dr. Fox, the eruption looked like an indolent acne. Bases of lesions, however, looked lupoid. Entire face affected. Pigmented

scars left. In some areas fusion of several lesions into oblong masses. Ordinary acne remedies had no effect.

Case 3. Male, age 21. Father, mother and three sisters living and well. One brother contracted phthisis in Russia. Patient is rather delicate looking. Thought at first sight to be suffering from a severe acne vulgaris. Considerable number of dull, fleshy, coppery-red spots, located chiefly on eyelids, forehead, bridge of nose, cheeks, chin and lips. Have aspect of lupoid tissue. Eruption indolent; duration at time of description, one year.

Kaposi (*Hand Atlas*, Plate VII) portrays in his *Atlas* an extreme case of acnitis under the title, "Acne Telangiectodes." The patient was a woman, age 40, who had an extensive eruption of spongy, vascular, non-suppurating nodules on the face, which came out in crops for two to three years.

Pollitzer (*Pollitzer*, "Hydradenitis Destruens Suppurativa," *Jour. Cut. and Gen. Urin. Dis.*, 1892, p. 9) in January, 1892, described his hydradenitis destruens suppurativa. Barthélemy's article on acnitis came to his attention at the conclusion of his investigations. Pollitzer admits the identity of the two affections.

Pollitzer's patient was a young man of 20 years, enjoying good health; family history good; no tuberculosis. He was one of six children, all in good health. Duration of disease, four months. The eruption was limited to the face and neck. About twenty lesions, in various stages of development, were present upon the sides of the cheeks, the chin, the region below the lower jaw, the front and sides of the neck and the shoulder. They consisted of pea-sized, reddish, nodular elevations. Also numerous small, hard, round or oval nodules in the subcutaneous tissue, having the feel of imbedded bird-shot. Incision of lesions gave exit to a drop of pus. The nodules appeared in crops of two to six lesions. Maximum intensity of eruption attained at fourth to fifth month. Disappearance of lesions followed by depressed round or oval scars and discolored patches. At the end of a year the disease was practically well.

Pick (*Pick*, "Acne Frontalis seu Varioliformis," *Archiv. f. Dermat. u. Syph.*, 1889, p. 551).

Male, age 30; duration of disease, six months. Family and personal history negative. Patient is of moderate build; weak musculature; but little fat. Patient sought advice because resemblance of eruption to small-pox interfered with his business activities. Onset sudden, with small reddish-brown nodules on nose; after some

days similar nodules on cheeks and forehead. Outbreaks from time to time since then. Deep scars left after disappearance of lesions. Some lesions deep, with overlying skin livid-red or normal. In some areas fusion of lesions. Some lesions present on neck, backs of hands and forearms. Potassium iodide and Fowler's solution had been employed for a long time without effect. Pick used the curette and Berg's comedo extractor to remove the lesions.

Dr. E. C. Perry (*Brit. Jour. of Derm.*, 1900, p. 414) exhibited before the Dermatological Society of London in 1900 a patient with numerous small, rounded, semi-translucent tumors of slow development situated in the central portions of the face, chiefly in the neighborhood of the orbits. The case was generally regarded as being similar to one previously exhibited before the Society by Dr. Perry. (Brief note in *British Journal of Dermatology*, 1900, p. 414.) In the discussion that followed, the members of the Society were of the opinion that the condition was very rare, and no clear description of it could be recalled by any members present.

Perry also exhibited another case to which I have been unable to find reference.

Crocker speaks of two cases having been shown before the London Dermatological Society by himself and a case by Galloway. I have been unable to ascertain the details of these cases, save a few brief references in *Crocker's Text Book*.

Trimble, "Case of Acne Agminata" (*Jour. of Cutaneous Diseases*, July, 1908, p. 309).

M. Y., woman, age 42; nativity, Russia. Strong and healthy looking; weight, 160 lbs. Parents lived to age of 70; one sister died of tuberculosis. In 1906 had an attack of grippe, followed by a severe rheumatism, after which the eruption appeared. The eruption is confined to the face, chiefly on the cheeks, eyelids and upper lip. The lesions are pinhead to millet-seed-sized papules, which can be felt before they are visible. Some of the earlier lesions have a distinct waxy appearance. Central suppuration occurs; pigmented scars left. Duration of disease, three months. From the accompanying photograph most of the lesions appear to have undergone involution.

Stelwagon showed before the Philadelphia Dermatological Society in May, 1908, a case of acnitis practically well but markedly pitted, to contrast with the more acute and extensive case exhibited by the author. *Stelwagon's* patient was a man of Italian birth, 29 years of age. The eruption which was limited to the face, had

lasted from six to eight months, and was followed by depressed pigmented scars.

THE AUTHOR'S CASE.

The patient, an intelligent man, has written his personal history and that of the development of the eruption, and the same, with a few minor corrections, is herewith presented:

"A. P., age 30, unmarried. Height, 6 ft.; weight, about 160 lbs. Occupation for the past 10 years has kept me in the open air continually.

"My father died May, 1904, age 70, apoplexy.

"My paternal grandfather died of tuberculosis of the lungs.

"My paternal grandmother died of tuberculosis of the lungs.

"A paternal uncle died of typhoid fever.

"A paternal aunt still living, age 74.

"Mother still living, age 59.

"Her father and mother—cause of death unknown.

"Her three brothers—deaths all by accident.

"My brother, age 37, died 1902, killed by accident.

"My brother, age 36, still living, good health.

"Previous illnesses: Measles and chickenpox occurring before 10 years of age; pneumonia, mild attack, 1900; chancre, 1901. About ten years ago I was to an extent troubled with pimples on my face, and ever since I have at times had pimples and boils on my neck.

"For three weeks prior to the 15th of February, 1908, there was noticeable a slight tenderness and non-elevated redness in the center of the chin, the size of a silver quarter-dollar, accompanied by slight itching. Before being shaved on the 15th of February, the barber removed from this affected portion a number of dead hairs; the operation was painful. The following morning numerous blotches appeared—a sort of a rash over the face and forehead; within three or four days these spots seemed to become smaller and more prominent, first under the surface and then above the surface of the skin. They were very slightly colored, particularly and more prominently around the edge. To the best of my recollection no new spots have appeared, nor have any disappeared (i. e., at the date of writing this history, about April 1). From the time the eruption appeared above the surface until they reached their full growth, there was a period of two weeks perhaps. There did not seem to be any change until after treatment was received. During the time the spots appeared I had a very bad cold; i. e., a discharge

from the nose, cough, and general aching, and slight fever lasting about two weeks. I felt 'grippy.' Six weeks prior to the appearance of the eruption I underwent a severe strain—mentally and physically. I secured very little rest, neglected meals, became constipated, and felt run down generally. My appetite was good, and when in bed I slept well.

"When first seen by Dr. Schamberg, about five weeks after the onset of the eruption, I made, at his request, a count of the pimples upon my face. The result is herewith appended:

Forehead	16
Between eyes	20 (grouped)
Right eyelid	11
Left eyelid	8
Nose	22
Right cheek	75
Left cheek	65
Under right eye.....	9
Under left eye.....	5
Above upper lip, right.....	14
Above upper lip, left.....	12
Chin	90
<hr/>	
Total	347 "

Objective Symptoms.

The following notes were made when the author first saw the patient, about March 23, 1908:

The lesions consist of papules and tubercles, varying in size from a minute pinhead to the size of a pea. They are scattered over the entire face, but show a tendency to grouping in certain areas. The greatest aggregation of lesions is over the chin, where they are closely studded; they are likewise present in considerable number in the hair of the mustache. Groups are also present along the lower jaw and upon the malar eminences. The bridge of the nose shows grouped lesions, as do also both upper eyelids. The forehead exhibits the largest areas of skin free of involvement; in this region the lesions appear to be larger and there are at the present time several subcutaneous, firm swellings of a pinkish-red hue. These have been present for some time, but are now becoming more prominent. Similar lesions can be felt also, but not seen, in

the neighboring portion of the hairy scalp. The color of the lesions generally is of a brownish-red; upon pressure with a glass the reddish color is dispelled and a yellowish-brown tint becomes apparent, similar to that observed in lupus lesions. A number of the lesions appear to be undergoing central necrosis and suppuration about the hair follicles, although there are no distinct pustules present. Some of the lesions exhibit a waxy and glistening appearance. The papules and tubercles are for the greater part obtusely conical, although the larger ones are inclined to be flat. Within the past two weeks many of the lesions have undergone slight diminution of size, and some are exhibiting a scaling upon their summits. There is but slight itching present, and no tenderness or soreness.

April 26, 1908. For the past two weeks new lesions have undoubtedly been appearing, especially upon the cheeks and forehead. On the forehead many begin as a finger-nail-size redness without elevation; on palpation nodulation is felt deep in the skin; the lesions gradually become more circumscribed and elevated. The older lesions are slowly shrinking and becoming drier. Some have undergone central pustulation; many have lost their former waxy appearance.

On the right eyelid is an oblong lesion having a shining vesicular appearance with hæmorrhage in the center.

By April 30 the number of lesions had considerably increased. The patient cannot appear upon the street without immediately attracting attention. At a little distance, the eruption bears considerable resemblance to a well-marked discrete small-pox. Another count made by the patient exhibits the distribution and number of the eruptive elements at this time:

Forehead	About	35
Between eyes	"	20
Nose	"	25
Over right eye.....	"	10
Over left eye.....	"	10
Right cheek	"	120
Left cheek	"	100
Mustache	"	25
Chin	"	150
Total		495

April 29, 1908. The lesions on the forehead, which are of

recent development, are gradually becoming more prominent. They are seen in various stages of development; some show merely an indefinite redness, fading into surrounding skin, irregular in outline, varying in size from a pea to a centimeter in diameter. Some are palpable to the finger, and yet not visible. Most of the lesions are not tender on pressure. The older lesions upon the lower portion of the face appear to be undergoing involution. They are of a dull, brownish-red tint, many of them being surmounted by a thin crust having a yellowish appearance. There is a pronounced tendency here and there to a confluence of neighboring lesions. In the right malar region there is a distinctly horseshoe-shaped group. Patient is taking six eggs a day and over a quart of milk.

May 7, 1908. A large reddish elevation on the forehead which began as a subcutaneous nodosity has developed into a fluctuating abscess. This has a diameter of about a centimeter. The lesions generally exhibit a duller color and a number are undergoing involution.

Toward the latter part of June all the lesions were undergoing involution.

July 1, 1908. Lesions are all disappearing, leaving oval, linear and irregular pittings, which are brownish in color.

August 4, 1908. The patient is greatly improved; indeed, he appears to be practically well. Almost all of the active lesions have disappeared. There is one new nodule on the left eyelid, and three oval and linear nodules persist on the penis, behind the corona.

During the entire course of the disease the lesions have been almost exclusively limited to the face. When the patient was first seen, he had a single pinhead-sized papule on the penis. Since that time two new nodules have appeared there. From time to time a few abortive papules (not more than half a dozen in all) have appeared upon the wrists and dorsal surface of the hands. In these regions they disappeared more rapidly than upon the face and without undergoing necrosis.

Treatment.

The patient was given a comparatively weak resorcin lotion, and later a lotion of sulphate of zinc and sulphide of potash, ten grains of each to the ounce. Still later, a 1-1000 solution of bichloride of mercury was employed. Internally, salol in 5-grain doses was administered, and the patient was advised to take plenty of milk and eggs. The patient was under the impression that local applications benefited the eruption, but my opinion is that the lesions were undergoing spontaneously a slow involution.

Later the biniodide of mercury in $\frac{1}{8}$ -grain pills was given three times a day; during the period of its administration the involution of the lesions appeared rather more rapid, although I am not able to say that the improvement was due to the mercury given. The mercury was given for a period of a month, and was discontinued about the end of May.

Histological Examination.

Three nodules showing yellowish centers were excised from the face and under surface of the chin for microscopic study. Those for general study were fixed in Formol-Müller solution, while the specimens for bacterial investigation were immersed in alcohol. The sections were stained in hæmotoxylin-eosin, Gram, Gram Weigert, Gram fuchsin, methylene- blue- eosin, polychrome methylene- blue, and carbol- fuchsin- methylene- blue.

The *epidermis* is practically normal, save that in some sections there is an infiltration of elongated leucocytes. Sections from one specimen show the absence of epidermis at a site corresponding to the exit of a hair follicle which has undergone necrosis.

Corium.—Under low power an enormous circumscribed cell mass is seen extending from the sub-papillary layer throughout the corium. This mass in one specimen is laterally adjacent to a hair follicle, while in another a disintegrated and destroyed follicle occupies the center. Nothing of the latter is seen save the arrector pili muscle. The cell mass is made up chiefly of inflammatory round cells. The infiltration is diffuse, with no particular grouping about the blood vessels. There is a considerable increase of fibroblasts. Plasma cells are absent, but mast cells are present in normal numbers. In the center of the cell mass a distinct area of coagulation necrosis is seen. This area is made up of a granular detritus which fails to take the stain. In some sections an enormous infiltration of polymorphonuclear leucocytes, constituting an abscess, is seen in the deepest portion of the corium. In other sections, as is seen in small micro-photograph, the abscess is advancing toward the periphery and involves the center of the hair follicle. Both the histologic and clinical appearances bear out the deep dermic or subcutaneous origin of the purulent infiltration. Scattered through the cell mass are numerous giant cells and epithelioid cells: the latter are most abundant in the neighborhood of the giant cells.

Giant cells in large numbers are present in the sections throughout their entire depth from the immediate sub-epidermic stratum to

the deepermost portion. They are most abundant in the sub-papillary layer and in the mid-corium. They are for the greater part present in groups; as many as twenty to thirty giant cells may be seen in a single field under a one-inch objective. Some isolated cells are, however, visible. They vary greatly in size and shape. Some are round, while others are oval, oblong, pyriform, or irregular. They contain from a half dozen to a score of nuclei, which are arranged peripherally and form either a complete circle or segmental and horseshoe configurations. A small minority of the cells exhibit nuclei throughout the center of the cell. The centers take the eosin stain well. It is evident that many of the giant cells are of thrombosed blood vessel origin. An examination of the sections, however, supports Pollitzer's contention that it is also possible for altered sweat coil sections to give rise to giant cells, or, at any rate, to pseudo-giant cells.

In addition there are typical Langerhans giant cells independent both of blood vessels and sweat coils.

Blood Vessels. There is a considerable increase in the number of blood vessels as well as a great dilatation of the existing capillaries of the corium; many of the latter are distended with red blood cells. Some have doubtless ruptured, for extensive extravasation of erythrocytes is seen here and there. The cross sections of many of the capillaries and veins show a proliferation of the lining endothelium, producing at times complete obliteration of the lumen. The lymph spaces and vessels are enormously distended, and there is a general œdema of the tissues.

Sweat Glands. The sweat glands in many areas are extensively involved in the inflammatory process. While some of those most deeply situated have remained intact, the more superficially located exhibit pronounced alteration. The lining cells of the coils are proliferated to such an extent as completely to occlude the lumen. The nuclei have undergone degeneration, so that in sections stained with methylene-blue-eosin they fail to take the blue stain and are colored pink with the eosin. An intense round cell infiltration is seen around some of the coil groups. In some areas the transverse sections of the tubules are so disintegrated that, save for one or two coils present, the glands would not be recognizable as such. The cells are arranged in a whorl-like manner, with a reticulated connective tissue surrounding the coil. The entire coil group is surrounded by a sort of connective tissue. In one group of comparatively superficially situated sweat coils, the accompanying blood vessels are completely blocked by thrombi.

As has already been remarked, some giant cell-like bodies are seen in close juxtaposition to remnants of coils and look as if they had their origin in them. I am unable to determine whether the entire pathological process had its origin in the sweat glands or whether the involvement thereof is secondary to the process elsewhere. There are some normal sweat coils lying immediately subjacent to and even surrounded by an immense field of polymorphonuclear leucocytes.

Staining for Bacteria.

About two hundred sections stained by various bacterial dyes were examined for tubercle-bacilli, but none could be found. Neither could any other bacteria be discovered after careful search.

Ocular Tuberculin Tests.

On 5/6/08 several drops of a one per cent. solution of tuberculin were instilled into the patient's right eye: no reaction followed this instillation. Several days later tuberculin was instilled into the other eye, with similar negative result.

Subcutaneous Tuberculin Test.

On 5/10/08 a milligram of old tuberculin was injected subcutaneously. Although the patient's temperature was taken several times a day, the highest evening registration was $98\frac{3}{5}^{\circ}$ F.

Some days later three milligrams of old tuberculin was injected. Slight malaise followed this injection, but the temperature did not rise above $99\frac{1}{5}^{\circ}$ F.

Guinea Pig Inoculations.

On 4/3/08 two tubercles were excised from the face and inoculated beneath the skin of two guinea pigs. One guinea pig died a few days later from unknown cause.

On 4/28/08 two more guinea pigs were subcutaneously inoculated with nodules excised from the chin. When the button of skin was removed with the skin punch, a large drop of pus, resembling that from a cold abscess issued from the bottom of the wound.

Guinea Pig A. Inoculated 4/3/08; weight 180 grams. On 7/13/08, day when killed, weight was 340 grams.

Guinea Pig B. Inoculated 4/28/08; weight 220 grams; increased to 320 grams; killed 7/13/08.

Guinea Pig C. Inoculated 4/28/08; weight 220 grams; increased to 330 grams; killed 7/13/08.

None of the pigs at autopsy showed any sign of the inoculation; no enlarged glands were present at site; the organs were entirely normal.

Bacteriological Examination.

On 5/19/08 two subcutaneous abscesses on the forehead about one centimeter in diameter were opened and cultured; one abscess had been previously incised in order to obtain pus for a direct smear examination. A small pustule was likewise incised and cultured. In addition, a nodule under the chin which was undergoing central necrosis was excised and dropped into a tube of sterile liquid blood serum.

The pus from the three lesions referred to was inoculated upon three tubes each of litmus milk, beef agar, peptone agar, Loeffler's blood serum, liquid blood serum and bouillon. All of these inoculations remained sterile save one of the cultures of the abscess that had been previously opened, which upon beef agar showed a scant staphylococcic growth. This was doubtless a contamination.

The excised nodule inoculated into liquid blood serum showed after several days a cloudiness about the cutaneous surface of the nodule. A smear made from this cloudy liquid yielded a pseudodiphtheria bacillus with transverse bands. This organism was of the type commonly found upon the skin. All the other culture tubes remained free of any growth. The bacteriological examination, therefore, may be said to have been negative.

I am indebted to Prof. David Bergey, of the department of hygiene of the University of Pennsylvania, for his guidance and aid in the bacteriological and inoculation experiments.

Bacteriological Examination and Animal Inoculation in Other Cases.

Darier examined the pus in smears from several nodules in Barthélemy's cases. There was almost complete absence of microorganisms, either pyogenic micrococci or bacilli. Only on a single slide Darier saw some small cocci arranged in groups. Inoculation of the pus into the peritoneum, beneath the skin and into the anterior chambers of the eye of guinea pigs was without result.

Pollitzer likewise failed to find any organisms in fresh smear preparations of pus. Stained sections for germs yielded negative results. Plate cultures of agar, inoculated with fresh pus, remained sterile, except that some common germs, such as the staphylococcus pyogenes and the bacillus prodigiosus, developed on some plates.

Galloway and Pernet have examined sections for tubercle bacilli, but without avail. The bacteriological examination and animal inoculations in my case were entirely negative.

Histological Examination in Other Reported Cases.

There is a general consonance in the results of the various histological examinations made, save as to point of departure of the inflammatory process. Darier found in one of Barthélemy's cases epitheloid and giant cells in the neighborhood of the hair follicles.

Barthélemy could not determine the origin of the process, as all the constituent elements of the skin were involved. He believes that the process consists of a peri-folliculitis of special character.

Pollitzer regards the process as primarily a suppurative inflammation of the sweat glands. He found an oval mass rather sharply limited at the junction of the subcutaneous areolar tissue and the cutis. This consisted of round cells, epitheloid cells, and giant cells. The giant cells were arranged in groups in astonishingly large numbers; as many as twelve were counted in a single field. Pollitzer regards the giant cells as of sweat gland origin. The hair follicles, which were numerous around the new growth, appeared normal. The infiltration never extended to the follicles. Many of the sweat glands showed peculiar changes. The epithelium of the coil was swollen, frequently obliterating the lumen.

It is possible that Pollitzer's nodules were younger than those examined by others. The nodules examined by me were certainly older in development.

Galloway examined a nodule from one of Crocker's cases and found abundant giant cells, and a general aspect of tubercular structure, but no tubercle bacilli were discovered.

Pernet (*Brit. Jour. of Dermat.*, vol. XIV., 1902, p. 131) studied a nodule from another of Crocker's cases and found the primary and chief change in the sweat coils, which were disorganized by inflammatory leucocytic infiltration. Some of the hair follicles were partially involved. No tubercle bacilli were found.

General Features of Acnitis.

Only about half of the cases observed have been reported *in extenso*.

The onset of the disease in most of the cases in which details were ascertainable has been rapid. In all three of Barthélemy's

cases, in Pick's case and in my own, the eruption appeared with great suddenness. In one or two of the cases there was accompanying or premonitory febrile movement of a mild character. The face is dominantly and in many instances exclusively attacked. In Fox's, Perry's, Galloway's, Crocker's (1), Trimble's and Stelwagon's cases the face alone was involved. Pollitzer's patient had the eruption upon the face and neck. In Pick's case and my own, there were a few lesions upon the hands and forearms. Barthélemy speaks of the neck, trunk, axillæ, arms, hands and feet exhibiting lesions.

The eruption appears in crops, the lesions reaching their numerical maximum in two or three months; according to Barthélemy, the intervals are at first 2 to 4 days, and later 8 to 15 days. In my patient almost 500 eruptive elements were present upon the face. Barthélemy's cases averaged 120 to 150 lesions upon the face.

The lesions appear to form primarily in the hypoderm and can be felt like shot beneath the skin. The overlying skin then becomes tumified and reddened and the lesions acquire more elevation and prominence. Many of the nodosities are palpable before they become visible. They vary in size from a pinhead to a lentil seed, or, at most, a pea. They are, when fully developed, of a brownish-red color; when central necrosis sets in, the center acquires a yellowish tint.

After the lesion is about a week old, although pustulation is not evident, incision will usually give exit to a drop of pus. The pus appears to be quite deeply situated, as I have seen it well out from the bottom of a wound made by a skin punch. In some instances deep-seated finger-nail-sized nodules terminate in subcutaneous abscesses, as in my case.

There is at times a tendency to fusion of several lesions, producing oblong or linear patches. It is quite characteristic for the smaller lesions to present a distinct waxy and glistening appearance entirely unlike ordinary acne lesions. A tendency to grouping is observed in many cases, and is particularly well shown in the photograph of Crocker's patient and in that of my case. The grouping is especially noted on the chin, the upper lip, the eyelids, malar regions and temples. As the disease progressed in my patient the grouping became less evident.

Barthélemy states that on an average the duration of each lesion is about a month: 10 to 12 days for the evolution of the nodosity, 3 to 4 for the suppuration, and 12 days for the crust to dry and fall.

The lesions are thus seen to pursue a much more indolent course than acne lesions: most of them terminate in necrosis and suppuration with ultimate scarring. Some undergo involution and disappear without the production of cicatrices. The scars are pigmented and depressed; they are round, oval or irregular, and resemble variculous pits.

Data as to the duration of the disease are incomplete: in Barthélemy's cases the disease lasted from ten to twelve months; Pollitzer's patient was likewise well in about a year; Pick's case had the disease six months when he came under observation. Fox's cases lasted four years, three years, and one year, respectively. Trimble's case had had the disease three months at the time of publication. Stelwagon's patient was well in from six to eight months. My own case appears to be practically well after a period of seven months.

Treatment.

There is no special *treatment* that exerts a definite influence upon the disease. Barthélemy says "the disease was cured in each case, but only after the use of tonics to triumph over the run-down condition. Mercurials and antiseptics were inactive against the local condition." Barthélemy employed salol for its intestinal antiseptic effect.

Tilbury Fox advised cauterization with fuming acid nitrate of mercury, or 50% caustic potash solution. Pick used the curette and Berg's comedo extractor to remove the lesions. He found the long continued use of Fowler's solution and iodide of potash of no avail. My patient seemed to do better under the use of biniodide of mercury than before he was placed upon this treatment. Perry's case cleared up rather rapidly when involution once set in, and not, in Crocker's opinion, as the result of treatment.

Etiology.

Barthélemy remarks, "As to the cause of acnitis, we are still reduced to hypotheses." One of his patients was rheumatic, the other lymphatic, all had digestive troubles; one had marked dilatation of the stomach. None of them were syphilitic. Fox's cases were delicate, and one had been "threatened with phthisis" several years before. Pollitzer's patient was in good health. Trimble's patient was a strong and healthy-looking woman of 160 pounds.

My patient was much "run down" at the time of the development of the eruption.

Diagnosis.

Acnitis may be readily distinguished from ordinary *acne* by the waxy character of the lesions, the grouping, their indolent course and the subsequent necrosis. A considerable resemblance to *syphilis* is presented in some cases. Two distinguished Philadelphia dermatologists were inclined to regard my case as syphilis when it was first exhibited at the Dermatological Society. Besnier and Fournier had similar suspicions with regard to one of Barthélemy's cases, and suggested specific treatment, which was employed without avail. Against the diagnosis of syphilis in my case was the distribution of the eruption, the lesions being almost entirely limited to the face. Some of the lesions, too, had a glistening waxy appearance which resembled lupus nodules.

Most of the French dermatologists regard acnitis and *folliclis* as identical diseases. Barthélemy and Crocker dissent from this view, and their position seems to me to be correct. Compared with folliclis, acnitis is more acute and violent in its onset, attacks chiefly and often exclusively the head and face, runs a shorter and more definite course, and apparently does not recur after the eruption entirely disappears. The lesions are more acuminate, have primarily a deeper seat in the skin, and do not present horny centers. The eruption is often so profuse as to present a rough resemblance to small-pox.

Folliclis (*Acne varioliformis* of the extremities, Bronson; Duhring's small pustular scrofuloderm) presents, as a rule, a different picture. The arms, legs, and more particularly the hands and feet, are the favorite seats; the face is only exceptionally attacked; the ears are more apt to exhibit lesions than any other area of the face. The preference for the hands, feet and ears suggests that vasomotor weakness plays a rôle in the causation, a fact which is further indicated by the existence of a poor circulation in these patients. Folliclis runs a much more chronic course than acnitis and tends to recur often at particular seasons. Most patients are worse in winter, but I have seen two brothers who had outbreaks each summer. One of Barthélemy's cases of folliclis suffered from the disease for ten years, the eruption being worse in the summer months.

An almost constant feature of the cases of folliclis that have come under my observation has been the condensation of the cen-

tral crust into a horny mass which lies in an umbilicated depression. Crocker remarks that the lesions of acnitis begin in the subcutaneous tissue, while the initial lesion of folliclis is dermic. Furthermore, that both the lesion and the scar of acnitis are larger than in folliclis.

Cause and Nature of Acnitis.

The cause and nature of acnitis must in the light of our present knowledge be set down as unknown. Barthélemy regards intestinal auto-intoxication as a factor. Most of the French dermatologists view acnitis and folliclis as identical, and look upon the affection as a tuberculide. Crocker says acnitis "is not in any way connected with tuberculosis, either in the patient or family history."

A study of the subject appears to me to strongly bear out the contention of Crocker.

The facts in favor of the tuberculous nature of the disease are the resemblance of the disease to folliclis, the occasional occurrence of tuberculosis in other members of the family, and the tuberculous aspect of the histological sections. Galloway and MacLeod, after a microscopic study of a growth in one of Perry's cases, remark that the evidence was undoubtedly in favor of the tubercular origin of the disease.

That the nodules of acnitis are not due to the organism of tuberculosis in the tissues is proven by the failure of all investigators to find tubercle bacilli in the nodules, and the negative result from inoculation of pus and fragments of nodules into guinea pigs.

The absence of any definite reaction after the Calmette ocular tuberculin test and the subcutaneous tuberculin injections in my patient makes it extremely unlikely that he is suffering from any tuberculous focus in the body.

The general tuberculous aspect of the sections of the nodules is bereft of much of its importance since Gilchrist, of Baltimore, has demonstrated that ordinary deep acne lesions may show upon microscopic study numerous giant cells suggesting in appearance tuberculous structure. The spontaneous and permanent cure of acnitis after its course is run is against the assumption of a tuberculous focus in the body liberating toxins, for the disease appears to get well after the operating cause ceases to act.

From a consideration of the above facts, it would appear that there remains but little basis for the assumption that acnitis is of tuberculous origin. The character of the lesions, the course of the



FIG. 3.



FIG. 2.



FIG. 1.



FIG. 4.

ACNITIS.

Section showing abscess of hair follicle: follicle crowded with dense infiltration of polymorphonuclear leukocytes: surrounding cell infiltration studded with abundant giant cells and epithelioid cells.

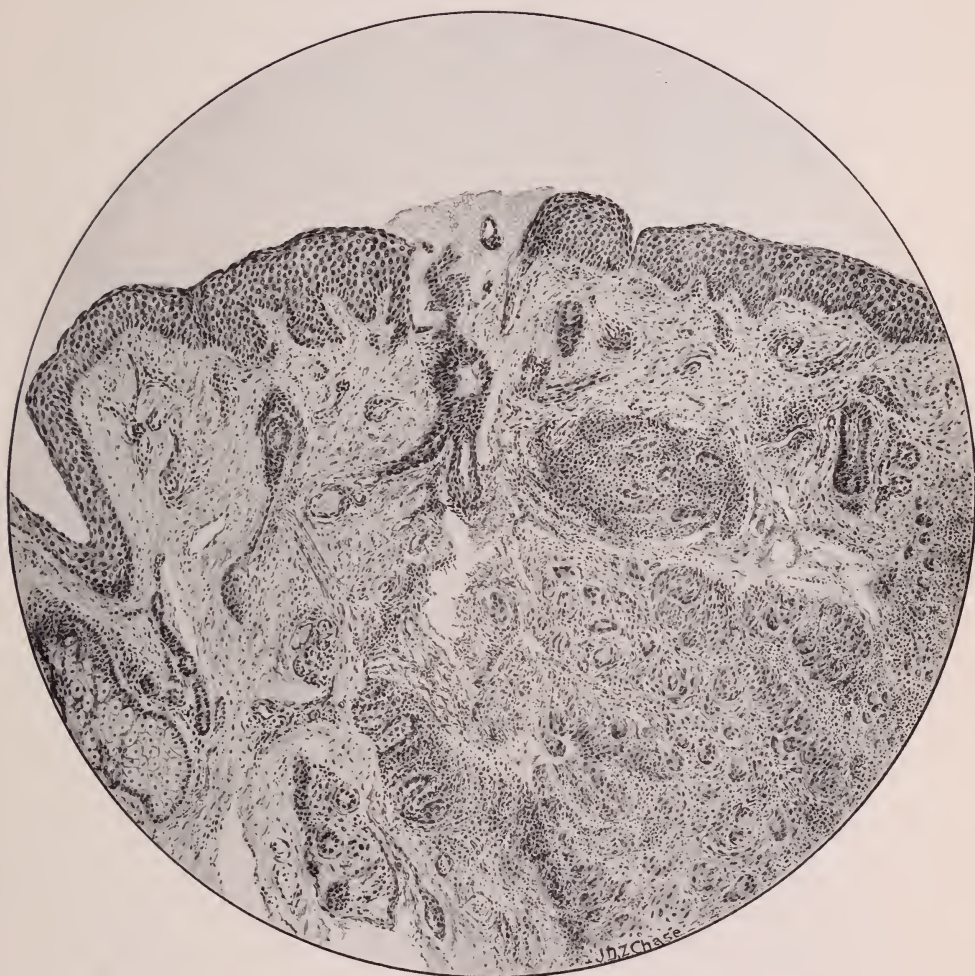


FIG. 5.

ACNITIS.

Section showing disintegration of hair follicle: numerous giant cells and epithelioid cells seen in the mass.

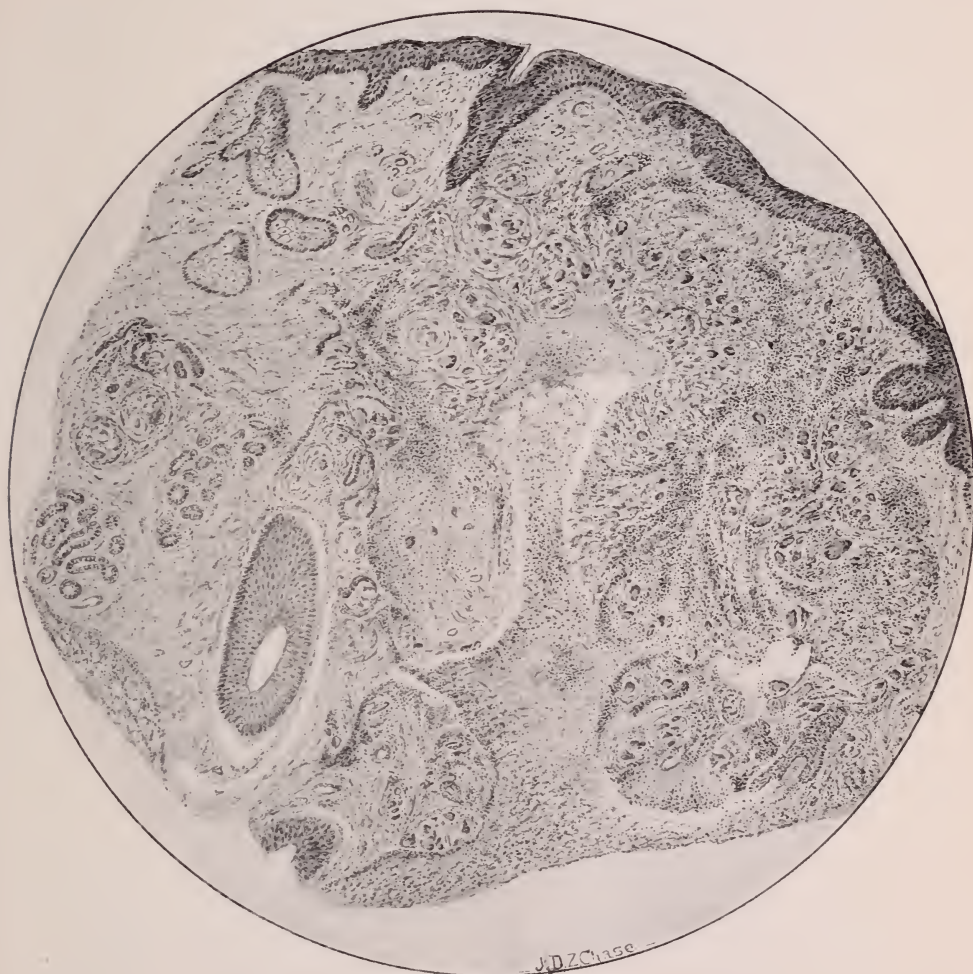


FIG. 6

ACNITIS.

Section showing condition of sweat glands: some of the deeper glands are normal but others are extensively disintegrated: numerous giant cells seen in the cell infiltration.

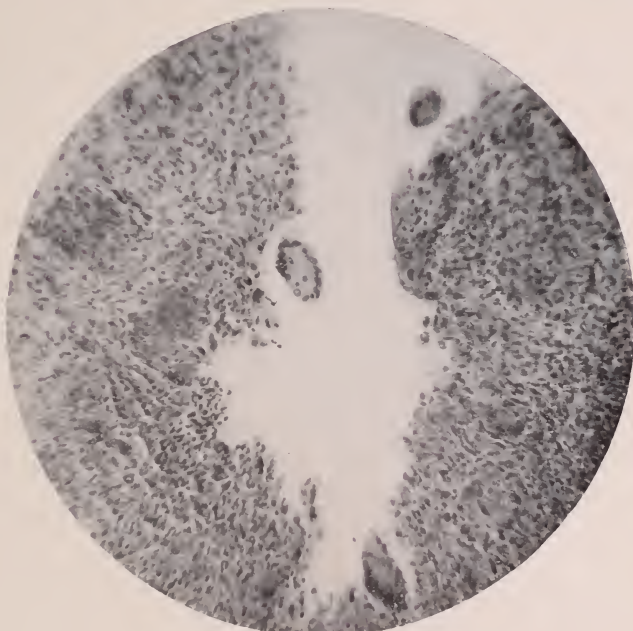


FIG. 7.

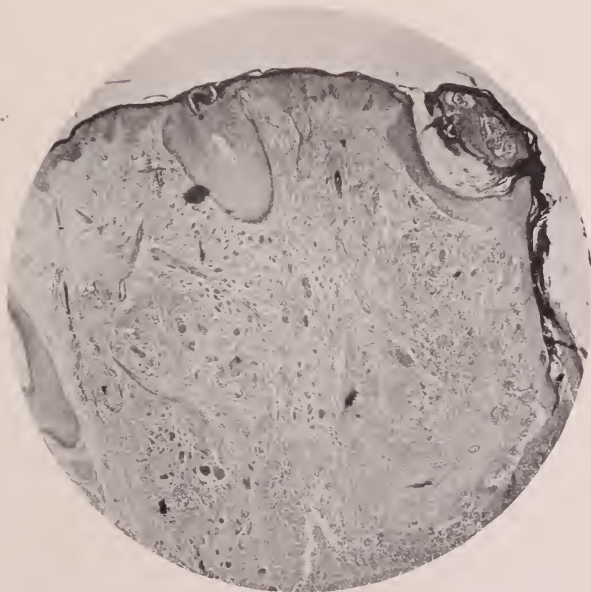


FIG. 8.

disease, and the microscopic picture suggest a parasitic granuloma. The failure to find the causative agent may be due to imperfection of technique. There is also the possibility suggested by several writers that a toxic substance eliminated through the sweat glands may play an etiological rôle; this hypothesis seems to me less likely.

From a study of the entire subject, it may be concluded that the affection under consideration is a disease *sui generis*. The designation "acnitis" is to be preferred by reason of the priority of Barthélemy's description, the brevity of the term, and the fact that it is non-committal as far as the etiology and pathology of the disease are concerned.

OBSERVATIONS ON THE USE OF LIQUID CARBON DIOXIDE.

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THE original communication of Pusey concerning the employment of carbon dioxide snow claimed a very modest field for it; recommending it chiefly for the removal of nævi and warts. When I first became interested in the subject I concluded that the analogy to liquid air, the use of which I had had occasion to admire in Dade's demonstrations and about which Whitehouse had published a very suggestive report, permits a range of application for liquid carbonic gas far beyond mere cosmetic purposes. Accordingly, I started my own work on more ambitious lines and a year's experience has made me appreciate the new agent as a genuine enrichment of our therapeutic resources in quite a number of dermal anomalies.

The technique has by this time, I am sure, become sufficiently familiar to all interested. In a previous article on this subject* I have gone freely into it and may therefore confine myself here to a few principal points. The moulding of the snow into suitable applicators is important. I have found Pusey's suggestion to stamp it into an ear speculum or into cylindrical hard rubber tubes of different widths very valuable. With the former one has a cone-shaped, cylindrical mass which permits a freezing surface of variable size according to the lesion to be treated. The applicator is best handled through a piece of chamois skin or through a glove.

As repeatedly pointed out, the two factors which determine the result to be achieved are the degree of pressure and the duration of the application. The former can not be mathematically measured and it is therefore best as a routine practice to exert just enough pressure to cause within a second or two a moderate depression of the frozen area below the level of the skin. This depends, however, on the structure of the treated area. Callous places or warts, for instance, are not easily depressed. The duration of the freezing

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* *Dermatol. Zeitschrift*, July, 1908.

should correspond to the intensity of the effect desired. Superficial lesions can be destroyed in from five to ten seconds. Deep-seated growths whose thorough destruction is contemplated may be treated even for a whole minute. Notwithstanding very energetic freezing the final result, as far as the cosmetic condition of the skin is concerned, is always satisfactory and the resulting scar, if it is at all permissible to speak of a scar, is perfectly smooth. Indeed, it would be difficult to compare the method in this regard to any other known form of destruction of tissue, be that by electrolysis, escharotics, caustics or pure surgical means. This feature, as well as the comparative painlessness, the rapidity of the work, the avoidance of an open wound and therefore of infection, make CO_2 easily the most elegant and the safest of all destructive agents.

The physiological effects upon the frozen area vary according to the time of exposure from a simple erythema to necrosis. A bulla will form as a rule after five to ten seconds of deep freezing when the edidermis is solid. Raw surfaces respond with free serous exudation. The surrounding tissues are usually involved and become more or less œdematous. It has occurred to me that this sero-tactic action may not be without deeper meaning in the case of pathological formations of the skin and that in a certain sense there is created a condition akin to Bier's "Stauung's Hyperæmia," with its consequent increased phagocytosis.

The range of usefulness of the new method is, as indicated above, quite large and may be appreciated from the following brief record of my observations.

First of all I would mention lupus erythematosus, a disease which heretofore has proven so rebellious against all sorts of methods. I have so far treated six cases with CO_2 and without going into details may sum up my experience by saying that I consider it by far superior to any other known form of treatment with which I am familiar. My material comprises one inveterate case with several large patches on the face and beginning atrophy, two discoid forms of a few months' duration and three more or less diffuse cases of varying periods of existence. Even one single application of a moderate degree of energy was followed within two or three weeks by a complete disappearance of the lesion. In one case there has been no relapse up to now, five months after a single refrigeration. One is reminded in this connection of Hebra's suggestion made several years ago to treat the lupus patches with a mixture of alcohol, ether, and spirits of peppermint for the purpose of moderate

superficial refrigeration.* We know only too well the capricious character of the disease in question to permit of premature rejoicing over the good results so far attained, but I am sufficiently encouraged by my experience to recommend the method to others.

Of epithelioma I have so far treated thirteen cases. My aim was always to accomplish the desired destruction in one sitting. I therefore froze the respective lesions according to their extent and apparent depth for a whole minute; and at times somewhat longer, under firm pressure. In one case treated on the 17th of March and mentioned more fully in my previous paper the result of one such application was simply ideal. The lesion referred to was a protuberant typical epithelioma of the size of a half-dollar piece situated upon the left temple in a woman 48 years old. Three weeks after treatment the resultant scab had fallen off and sound skin had formed underneath. At the present writing, more than six months since then, there is no trace of a recurrence and the cosmetic result is as excellent as after successful X-ray treatment. The patient in this case lived out of town and the simplicity of the whole procedure was much appreciated by both her and myself. An equally good result was obtained in almost all other cases. In a few of them I followed the freezing by a series of X-ray exposures. One such case, a rodent ulcer of considerable extent, encircling the left ear and covering an area of almost the palm of a hand I exhibited before the Dermatological Section of the American Medical Association at its recent meeting. The freezing in this case was done very energetically in one sitting. It produced a considerable degree of œdematous infiltration of the surrounding tissues so that the left eye was entirely closed for about three days. The ulcerated area itself continued to ooze profusely for about a week when it dried up and showed several necrotic patches. Moist applications of a weak bichloride solution were made for a good part of the day, while during the night nosophen powder was dusted over the denuded surfaces. Mild X-ray exposures were given regularly, about thirty in all. At the end of ten weeks the whole surface was covered with a delicate smooth scar. In one of my cases the operation had to be repeated six weeks after the first application which evidently had not been thorough enough.

* My attention was only very recently called to Arning's experiences with refrigeration in Lupus erythematosus, epithelioma, etc., published 1903. Max Juliusberg reported in 1905, No. 10, of *Berliner Klin. Wochenschrift*, about his use of liquid CO₂ in the form of a spray for various dermatoses. The snow treatment is, of course, vastly superior to it, from a technical point of view.

A final judgment about the value of this method in epithelioma can, of course, not be rendered before two or three years have passed by, but we know only too well that relapses occur after energetic surgical removal with subsequent transplantation of skin, after curettage, after the use of caustics and after apparently successful X-ray treatment. We may, therefore, at the present time see in CO₂ an additional agent of much promise which, on account of its rapidity of action, its painlessness and great convenience, is deserving of a place alongside of other approved methods.

In regard to *nævi* and warts I can fully confirm Pusey's statement. For small *nævi* it is far preferable to any other form of treatment, especially electrolysis, on account of the superior cosmetic result. For the larger, darkly pigmented hairy forms, of which I have treated one conspicuous case which is more fully mentioned in my former publication, it is at the present time truly the only way of successful management. I found the method especially valuable for angiomatous *nævi*. In the fibromatous forms it is occasionally necessary to repeat the application.

The almost daily use of the snow and thorough familiarity with its action would naturally lead one to try it in quite a variety of affections where other methods have failed. I have thus used it in a stubborn case of keratosis palmaris with very good result. I have also employed it occasionally for small patches of indurated eczema with complete success. I have still under my care a very interesting case of adenoma sebaceum of the face in which two applications of the snow have so far brought about a most remarkable improvement. I have elsewhere mentioned its use as an adjuvant in a case of extensive powder marks on the face of a young man. I have repeatedly employed it as a local anæsthetic in making incisions. I have used it tentatively in a case of multiple neuro-fibromata and also in a case of keloid and believe that here is a promising field for it. I also believe that it could be used in foul ulcers of the leg or even in tuberculous ulcers in the manner in which liquid air has been used successfully. I have used the snow in one case of chloasma of the face with marked success. It is needless to mention the insignificant results of all other methods in this intractable condition.

I have no doubt that further uses may be suggested as occasion will arise. For the present I feel, after my comparatively brief experience, that we have in carbon dioxide snow an exceedingly valuable agent with great further possibilities.

SOCIETY TRANSACTIONS.

THE NEW YORK DERMATOLOGICAL SOCIETY.

360th Regular Meeting. October 27, 1908.

DR. H. H. WHITEHOUSE, President.

Bullous Dermatitis Herpetiformis. Presented by DR. FOX.

The patient applied for treatment a month ago, with a well marked eruption of the bullous form of dermatitis herpetiformis. Although the eruption had now almost disappeared. The patient has had the trouble at intervals for five years. The last attack existed for a year and a half. He has been a private patient in the Skin and Cancer Hospital, and has had severe malarial attacks. He has been unable to take quinine; but the fever and eruption seemed to yield to the arsenical treatment he has received.

One or two small bullæ now appear at the margin of the disks representing the former eruption. There are one or two pustules on the back.

Dr. Fox said that he regretted that Drs. Trimble and McGavock were the only ones present who had seen the case at the onset, when it presented a remarkable clinical appearance.

A few years ago Dr. Fox had a case in which there were so many smooth patches and gyrate lesions that it was questioned whether it was not a case of erythema multiformæ. There were a number of disks without vesiculation at all. Dr. Duhring saw the patient and called the eruption bullous dermatitis herpetiformis.

Congenital Ichthyosiform Erythrodermia (Brocq). Presented by DR. GEORGE T. JACKSON.

The patient was a girl seven years old. There was nothing of importance found in the family or previous history of the patient.

The eruption, according to the statement of the parents, dated from birth, and had been unchanged since then with the exception that it became a little more pronounced in the winter.

The eruption occupied the back of the neck, the axillæ, and the upper part of the chest and back. On the back of the neck the skin was slightly reddened, in shallow folds, and covered with closely adherent fine scales. The appearance reminded one of patches sometimes seen in pityriasis rubra pilaris, only there were no outlying papules. In the axillæ, both on the side of the chest and inner aspect of the arm, the skin was rough, scaling, and resembled slightly the condition seen in acanthosis nigricans, but without the dark color and the warty growths. On the trunk there was only slight, superficial scaling in patches. There was xeroderma of the arms.

DR. FORDYCE said that the eruption certainly belonged to the ichthyosis class of diseases.

DR. KLOTZ agreed that it was some form of ichthyosis.

DR. BRONSON thought that it was something more than the ordinary congenital type of the disease.

DR. FOX objected to the term "ichthyosis form." Psoriasiform might apply better. In his experience ichthyosis never occurred in localized, marginate patches presenting the sharp outline that this case has. It was confusing to one's idea of the disease to use the term ichthyosiform, for it did not seem related to any form of ichthyosis that he had ever seen.

DR. SHERWELL said that from the cursory examination he had made he would class it as an ichthyosis.

DR. FOX recalled a patient, a boy four or five years old, who had been under the care of several members of the Society, and presented at several meetings. A diagnosis of ichthyosis was first made, but it afterward turned out to be *Lichen ruber*. The linear patches on the elbow of this child and eruption over the nucha, suggested that case, and it is possible that this case might develop into typical *lichen ruber* or *pityriasis rubra pilaris*.

DR. TRIMBLE said that it very much resembled a case shown by Dr. Bulkley at the Dermatological Congress as *Acanthosis Nigricans*. He thought at the time the case was exhibited at the congress that it was an exaggerated type of ichthyosis, and he was inclined to believe the present case to be the same.

DR. JACKSON said that the case seemed to correspond to the description that was given by Brocq of congenital ichthyosiform erythrodermia. By daylight there is more marked redness than by night. In the differential diagnosis of the disease attention is called to the marked implication of the axillæ as in *acanthosis*, from which it differs in entire absence of the dark color and warty growths. The disease differs from ichthyosis as commonly seen in its patchy character, its localization in the axillæ, and the almost complete exemption of the extensor surfaces of the limbs.

DR. WHITEHOUSE said that the case presented at the Dermatological Congress by Dr. Bulkley was still in the Hospital. She is a little girl of nine or ten years of age, with these ichthyosis-like patches on the neck, axillæ, both sides of the joints of the knees, etc., and in addition she has a migrating erythema in patches distributed in large numbers over the trunk, limbs and face. This latter appears to be distinctly vaso-motor in origin, as some of the patches actually fade away during observation. He would try to bring her up at the next meeting, as it would be interesting in connection with the case presented to-night.

Paget's Disease. Presented by DR. SHERWELL.

Mrs. L., aged 57, came to the office about two months since, with a small epithelioma on the bridge of the nose. She was operated upon with the curette and acid nitrate on the 21st of September, with the apparently usual good result. At her last visit, October 10, when the scab had fallen, she spoke for the first time of an unusual condition of the left nipple, which she then showed. She gave a history of slight darting pains, tenderness and moisture, and retraction. She dated the commencement of this affection four years back. It seems to him to be a case of Paget's disease, although the symptoms are so slight.

DR. JOHNSTON said that it was very difficult to deny the possibility, but there were no present signs of Paget's disease. There might be a beginning carcinoma, but there is no tumor in the breast.

DR. ROBINSON said that he had examined the case carefully and failed to note any symptoms which would lead him to suppose it a case of Paget's disease. There is nothing pathological to account for the retraction or to suggest a carcinomatous breast. Whether it is a pressure atrophy from her corsets he did not know, but considered it probable. There were no signs of a dermatitis such as is present in all cases of Paget's disease. Microscopical examination of scrapings of the cutaneous surface would easily settle the question of Paget's disease.

DR. FORDYCE said that the tumor impressed him as an epithelioma of the skin, probably similar to that which had been removed from the nose. Paget's disease, even in an early stage, would not show the present condition of deep infiltration, but rather a dark red moist surface with more superficial infiltration. There was no reason why an epithelioma should not develop in this location as in other parts of the body.

DR. SHERWELL said that he was still of the same opinion. He believed that it was carcinomatous, of the type called Paget's disease, and that really it was an epithelioma as they all are from the start. He believed from what his experience and instruction that the woman had a carcinomatous diathesis, and that she will have a multiplication of other forms of epithelioma, or perhaps carcinoma. He thought, too, that the term Paget's disease should be applied only to disease of the nipple, as it was primarily shown by Paget himself. As applied to other parts of the body, the term frank epithelioma is enough. He intended to keep the case under observation, and would probably report it later.

DR. JOHNSTON agreed with Dr. Robinson that the matter could probably be decided by taking scrapings and having them examined, and Dr. Sherwell said he would do this.

DR. FORDYCE said that it was an error, in his opinion, to restrict the term Paget's disease to the changes which are met with about the nipple, as identical epithelial changes are found when the affection occurred on other parts of the body. This he had demonstrated in cases of Paget's disease of the buttocks and other regions.

DR. SHERWELL said that when he was in London in Congress of 1881, when this condition of the nipple was shown for the first time, he had a case with a peculiar eczematous eruption of the nipple under treatment in Brooklyn, and he had showed it to some members of the Society, as such a case of Paget's disease; and eventually it developed into a carcinoma of the entire breast. The watery secretion was very marked. Duhring came out with another case shortly after.

DR. WINFIELD said that recently he had been consulted by a lady, who for a number of years had had a circumscribed itchy patch over the lower angle of the right shoulder blade. She had consulted a number of physicians who had pronounced it a localized eczema, but it had never improved under treatment. When he first saw it, there was a raw looking patch about the size of a fifty cent piece, it was flat, shiny and deep red in color, covered with a sticky fluid. There was but little itching, but considerable pain which radiated from the spot. A piece was removed and sent to a competent pathologist, who pronounced it to be malignant, "resembling in all particulars the variety of malignant degeneration known as Paget's disease." The patch with a large margin of skin was removed, also a pigmented mole, the size of a twenty-five cent piece situated on the right chest just below the clavical. Examination of the mole and the skin about the patch and the patch itself showed epitheliomatous degeneration of all three. He also mentioned a case he had presented to the Brooklyn Dermatological Society many years ago, of a man who had had an eczematous condition of the lower lip that finally degenerated into an epithelioma, here to the pathological picture was one of Paget's disease. He did not think

that malignant eczematous degeneration of the skin was necessarily confined to the nipple, and there were a number of reports to the contrary to support his belief.

Case of Multiple Tumors associated with itching. Presented by DR. JACKSON.

The patient was a woman 21 years of age, unmarried. She suffered from headaches, and slept poorly on account of itching, which was always worse at night. An eruption showed itself some ten years ago and she has not been well since. It consisted in a number of tumors as large as the end of the little finger on the right thigh. There was one tumor above near the hollow of the thigh, and a sparse row of them down to about the middle and posterior aspect of the thigh, where there was a large thickened patch of skin. The patch showed many dilated vessels, the result of X-ray treatment, and the tumors were arranged about its edge. Below this patch was a group of tumors. The tumors were elevated, hard, and showed evidences of having been scratched. The patient stated that new tumors came from time to time, but never disappeared. She stated further that the telangiectatic patch appeared during the past summer. She had been treated in many ways without any benefit. Does it belong to the class of cases reported by Hardaway and Schamberg?

Suggestions in regard to treatment would be welcomed.

DR. WINFIELD said that he would not venture a diagnosis nor attempt to classify the disease, but he thought the case resembled those cases that had been reported by Hardaway, Fordyce and Schamberg. An unclassified disease consisting of deep-seated cutaneous nodules, attended with intense itching.

DR. ROBINSON said that he could not make any diagnosis at present, but would like to know if the section passed around was not from an old lesion. If a section were made of the lower place on the knee he did not think it would show the same appearance as in the section shown. That was evidently an old process. He suggested that a piece be cut from a more recent lesion, as an aid to a diagnosis.

DR. JOHNSTON said that clinically it corresponded closely with the case reported in his thesis to the Society, which he called "a papular, persistent dermatosis." Since his paper was published half a dozen other examples have been reported which corresponded very closely. This is perhaps the only one in which the disease was localized. In the others, the eruption was widely disseminated. In his own case the papules were on the face, knees, elbows, back, etc. The individual lesions were not quite so large as these, but had the same appearance—covered with a thickened epidermis, showed rounded summits and shaded into surrounding skin. The itching was the worst he had ever seen. He had made a histological examination of the case. Sections were taken from an early and from an old papule. In most of these cases the process begins with a serolymphatic infiltration about the vessels of the skin; at times you will get a distinct vesiculation; as the papule develops there is a distinct keloidal development, in fact an increase both in corium and epidermis. No remedies had any effect whatever. As soon as the papules were excised they returned. Not only that, but every stitch hole became the seat of a new lesion. He could make no suggestions with regard to treatment. Roughly speaking, from its

general appearance, behavior, and histological character, it might be grouped with prurigo.

DR. TRIMBLE said that he wanted to suggest the probable diagnosis of Lichen planus hypertrophicus. He wondered if this patient had even had any small lichen planus lesions before coming to Dr. Jackson. It was true that some of the lesions were rather widely scattered, but a great many of them were grouped in one large patch on the lower outer aspect of the thigh. In this area there was much lichenification, it had a slight violaceous hue, and the itching was intense—all of which was in favor of the diagnosis mentioned, although he merely suggested it.

DR. JOHNSTON said that the characteristic picture of lichen planus is different.

DR. JACKSON said that in regard to the color of the tumors, the patient had been wearing a salicylic acid plaster for some days, which had slightly reddened the skin. When first seen there was no suggestion of the color of lichen planus. It seemed to him the case was of the Hardaway-Schamberg type, though their cases were more disseminated. The persistent itching, the recurrence of the tumors when they were cut out, and the great thickness of the corneous tissue tumors all corresponded with their description.

Lupus Vulgaris of the Nose. Presented by DR. J. A. FORDYCE.

Miss R., aet. 28; born in Spain; twelve years in the United States; a bookkeeper by occupation. No history of tuberculosis in the family. Her hygienic surroundings are fair; she lost twenty pounds in weight in the past two years. Her trouble began about a year ago; six months ago the nose began to swell and at the same time became reddish purple in color; about a month ago she had an attack of epistaxis. At the angles of the mouth were superficial scars which suggested an oldluetice infection.

Lupus Vulgaris of the Nose. Presented by DR. J. A. FORDYCE.

A. S., aet. 24; married; born in Germany; in this country 22 years. She has had pulmonary tuberculosis for two and a half years; was in Sullivan County nine months; came to New York City ten months ago. The cutaneous trouble began about a year ago when the tip of the nose became red, swollen and painful. She was placed on mixed and other forms of treatment, but derived no benefit until she received X-ray exposures two months ago, since which time she has been steadily improving.

Case of Dermatitis Herpetiformis. Presented by DR. J. A. FORDYCE.

Patient, aet. 23, male; stenographer by occupation. His appetite was poor; his bowels irregular and constipated; his habits otherwise good. He described the eruption as beginning about the knee, where he first noticed areas of redness followed by vesicles. These extended up the thigh and down the ankles and during the past summer the eruption appeared on the arms. It was intensely pruritic, especially at night.

A considerable amount of pigmentation is present after the disappearance of the lesions.

Dr. Fordyce requested suggestions in regard to treatment.

DR. JOHNSTON: a vegetarian diet first and foremost, calomel and quantities of water internally. These measures have held the disease in check and cut short relapses. He was not, however, prepared to say that they would effect a cure.

DR. JOHNSTON said that when arsenic does take hold the effect is wonderful, but when it does not it is not only useless, but positively detrimental.

DR. ROBINSON said that he had a case which Dr. Bronson had seen, which commenced like erysipelas and was treated for a month without success. Finally, he gave the patient antipyrin, and in forty-eight hours he was almost well. Since that time he had had over six attacks, each of which had been aborted within two days by the same remedy. In another case, a boy, a portrait of whom is shown in Dr. Duhring's work, arsenic proved very effective.

DR. WHITEHOUSE would like to subscribe to the efficacy of antipyrin in this disease. He now has a case in private practice where arsenic prescribed by one or two others had failed of effect, but the antipyrin has succeeded in practically clearing up the condition. It took three or four months to do this, but it was certainly very effective.

Keloid resulting from a burn, showing effect of X-ray treatment.

Presented by DR. TRIMBLE.

This case was presented before the Society last year by Dr. Fordyce as a linear keloid resulting from a burn. It was presented to-night to show the beneficent effect of the X-ray in such cases. The case has had 15 exposures of 5 minutes each. At first the treatments were given twice a week, but recently only once a week. The improvement is marked, especially in the center, where the lesion is practically flush with the normal skin.

Case for Diagnosis. Presented by DR. JACKSON.

The patient was a woman, 28 years old, unmarried. Her personal and family history were of no special moment. Her present disease began about eighteen months ago as a bruise-like lesion on the front of her right arm. During the last seven months this had slowly increased in size, and new areas had appeared on the posterior aspect of both arms below the axillary folds. There is a diffuse hardening of the skin of the right arm over the biceps, which seems to be rather in the subcutaneous tissues than in the skin itself, though the latter cannot be pinched up as readily as usual. This hardening shades off into the surrounding skin. There is little, if any, change in the color of the skin. Similar indurated areas are found on the backs of the arms in the regions described above. There are no subjective symptoms, and no history of injury.

It was quite generally agreed to be a case of scleroderma.

DR. KLOTZ suggested the use of Thiosinamin. He had treated with injections in the German Hospital, a little girl, with keloids after burns on the face

and arms. He gave her thiosinamin. She left the hospital certainly materially improved.

Dr. Fox said that he had used injections of thyosinamin and had also given it internally, but with no beneficial effect in any of the cases upon which he tried it. He was convinced that the X-ray treatment, which does so much good in many skin diseases when skilfully used, and does so much harm when not skilfully used, is the only remedy that will benefit keloid. It may not always act, but it has produced a great many good results, and is the only remedy he knows of for this condition.

Dr. SHERWELL agreed with what Dr. Fox had said. There are very few idiopathic keloids, but they nearly always, probably always, are the result of an antecedent lesion. He has seen them disappear under mercurial treatment, skilfully applied. They come sometimes from very slight causes.

Dr. WHITEHOUSE said that Dr. Goldenberg was very enthusiastic some years ago over the results he obtained from thyosinamin, but from subsequent observations he was of the opinion that it was absolutely without effect.

Dr. MORROW said that in some cases he had obtained very good results from deep multiple scarifications made over the tumor. Some time ago he had a case of disfiguring keloids of the face, following an application of some kind of acid made for the removal of moles, and recently he had a case where a number of keloid growth had appeared on the hands, following the removal of warts. In these cases treatment by deep scarifications were followed by a marked improvement. It required more than one scarification, however.

Dr. Fox said that he had had some excellent results with scarifications in the cicatrices of the face following smallpox, which had persisted for many years.

Dr. MORROW said that he had had a very brilliant case with linear sacrifices following X-ray applications for the removal of hairs on the face, in which the woman was badly disfigured with unsightly scars. One gets very good cosmetic results by scarifications. At the same time, where the scars are depressed, he usually, after the cuts are made, stretch the tissues and applies absorbent cotton, the threads of which insinuate themselves in the cuts and prevent their immediate union. After each application the scars were found to have flattened out and improved the appearance very materially. He had also been treating a very extensive scar on the neck, in which he got very excellent results—almost a perfectly smooth surface—by repeated deep scarifications. It is necessary to use a little manipulation at the same time to retract the cut surfaces.

Dr. TRIMBLE said that the case was presented merely to show the improvement since last spring, when it was first presented. The X-ray is the only effective remedy he know of for such cases, but one must be very careful in using it on the face, as sometimes without any warning large telangiectatic patches appear, and if these come on the face the remedy is worse than the disease. He would not hesitate, however, to use the rays on any other part of the body.

REVIEW of DERMATOLOGY AND SPYHILIS

Under the charge of A. D. MEWBORN, M. D.

INFLAMMATIONS.

By HARVEY P. TOWLE, M. D.

Infantile Eczema. A further note on the etiology of. HALL. *Brit. Jour. Derm.*, Jan., 1908.

Since his report in 1905 on the etiology of infantile eczema, Hall has continued his investigations, so that with the addition of these recent cases, he is able to give in the present article conclusions drawn from an analysis of 100 cases. A study of this larger series gives the following results:

Site—The primary site of the eruption is almost always on some part of the face or scalp. The eruption always becomes bilateral and is usually symmetrical. Other parts of the body and limbs are frequently affected, but less severely. Certain parts of the face and neck frequently, but not always, remain clear.

Age—Eczema is most common at about the third or fourth month. It may appear in the first week. About four-fifths of the cases appear during the first four months.

Season—It is much more prevalent during the colder months.

Sex—78% of the cases were in males, 22% in females.

Occurrence of Eczema in the Family—In most instances there were no other cases in the family. Exceptionally one or even two other children of the same parents were affected.

Age of the Mother—There is no clear evidence that the age of the mother at the time of the birth of the child plays any part.

Relation of Vaccination to the First Appearance—There is no evidence that vaccination is an etiological factor. Less than one-third of the cases followed vaccination. The period after vaccination varied greatly, from forty-eight hours to two, three, six or even nine months. Occasionally the coincidence is very striking.

Dentition—There is strong evidence that the first dentition is not an etiological factor. In over four-fifths of the cases the eruption appeared before the beginning of dentition. Occasionally the two events coincide.

Gastro-Intestinal Disturbances—Vomiting occurred in only a small percentage. Diarrhœa also occurred in a small number.

Nutrition of Child—There was no evidence of rickets in most. When present usually had developed after the eruption had lasted a long time. Rarely any wasting on appearance of the eruption.

Skin Diseases in the Mothers—In three-fourths of the cases there was no evidence of past or present skin diseases in the mother. In only 12% had the mother suffered from a well defined eczema.

Feeding—83% of the cases were in the breast fed, 17% in bottle fed.

Urticaria Haemorrhagica. BECK. *Monatsh. f. prakt. Derm.*, LXVII, No. 8, Oct. 15, 1908.

According to Beck a review of the cases reported under the title of urticaria hæmorrhagica reveals such a variety of clinical manifestations and course and such divergence in the proved and hypothetical etiology and pathogenesis that one is quite unable to decide as to whether it is an independent disease or merely a variety of urticaria. It was possible, however, to distinguish two general types; one severe, with serious constitutional disturbances, swelling and pain in the joints and frequent recurrences; the other milder, with cutaneous symptoms only, which in many cases recurred frequently. Beck's case was etiologically interesting in that the hæmorrhagic urticaria was the product of two different factors working together. The patient was a well developed child of five. When fifteen months old had diphtheria. The injection of diphtheria antitoxin was followed by an urticarial rash. When four years old had measles with a mild pleurisy. Two weeks ago loss of appetite and constipation. Soon after an itching eruption developed occurring in crops which has persisted and which was composed of the ordinary wheals characteristic of lichen urticaria. While in the hospital the child underwent an operation for the removal of adenoids. Soon after the operation the urticarial wheals, both the old and the new, presented the unusual appearance of a central, elevated, tense, soft, œdematous plaque, surrounded by a broad livid zone, whose color did not disappear on pressure. This coloring persisted for several days after the wheal had disappeared and passed through the usual color changes of a hæmorrhage. The general condition was good after the operation. The temperature for one or two days only rose as high as 37.1° - 37.2° C. Eight days after discharge from the hospital the post-operative eruption had entirely disappeared except for a few yellow stains. On the other hand the crops of urticarial wheals were still appearing, but the lesions were now of the ordinary type and no longer hæmorrhagic. Beck thought that the urticarial eruption without hæmorrhage was due to the digestive disturbances present. The operation added a new factor by producing an open wound through which toxins, arising either from a bacterial infection or from superficial tissue necrosis, were absorbed into the circulation. The patient's skin was abnormally sensitive to toxins, as was evidenced by its reaction to the diphtheria antitoxin. The toxic substances absorbed through the tonsillar wound set up such a reaction in the skin capillaries as led to an outpouring of red corpuscles.

Generalized Erythema following subcutaneous injections of Fibrolysin.

TANSARD and RAILLET. *Bull. Soc. Fr. de Derm. et de Syph.*, Feb., 1908, p. 83.

A man, forty-eight years old, entered the hospital for the treatment of a cutaneous tuberculosis of the hand. Fifteen years ago the patient acquired gonorrhœa and had never been completely cured. In 1903 internal urethrotomy was done because of retention of urine. In January,

1908, had hæmorrhagic cystitis, which was still present when the man was admitted to the hospital. There was also a stricture of the urethra which would only admit a No. 2 filiform bougie. Under urotropin internally and lavage with collargol the cystitis improved rapidly. In order to soften the stricture eight subcutaneous of 2 cc. Filrolysin (Merck) were given between January 11 and January 25. Late in the day of the last injection there appeared a generalized erythematous, urticarial eruption. The administration of urotropin and the injections of filrolysin were stopped at once and the eruption disappeared in two or three days. On January 28 another injection of filrolysin was given. One hour and a half later the patient complained of twitchings and prickling and burning. On the next morning there was present a fresh generalized exanthem, which was most intense over the antero-external surface of the right arm, the dorsum of the right hand, the anterior surfaces of both forearms, the elbows, knees and the back of the body. The eruption encircled the neck like a collar, but spared the face except for a few papules on the left cheek. The soles were involved, but the palmar surfaces of the fingers were free. The eruption also spared the cranium, shoulders, lower abdomen, genitals and lumbar region. The eruption was composed of pale red, erythematous papules, confluent over the parts just mentioned, but disseminated elsewhere, which were considerably raised in some regions, especially the fingers. On the back the brown-stained traces of the preceding eruption stood out prominently where the erythema was not diffuse. The exanthem was followed by furfuraceous desquamation, most abundant over the arms and buttocks.

As no urotropin had been given for some days before the appearance of the second eruption, too long a period for even latent effects, the filrolysin was believed to have caused the outbreak. Of the components of filrolysin, thiosinamin and salicylate of soda, thiosirammin was probably the active substance as the administration of salicylate of soda provoked no reaction. This view was strengthened by two previous reports of an eruption following the use of thiosinamin.

Eczema, generalized and infected in an ichthyotic; visceral Metastases.

GAUCHER and NATHAN. *Bull. Soc. Fr. de Derm. et de Syph.*, Feb., 1908, p. 67.

A child, six and one-half years old, was admitted to their service with what appeared to be a congenital weeping and impetiginous eczema overlying a hardly distinguishable ichthyosis. For a time the case improved when, about three weeks after entrance, the child became pale and weak, and complained of headache. The temperature rose to 40° C., the respirations to forty. Nothing abnormal could be found in the heart or lungs. The urine was thick and dark and contained considerable albumen and blood. The abdomen became distended, hard and slightly tender. The stools were frequent, but not diarrhœal. Some nausea. Six weeks later the nephritis seemed to have entirely disappeared, but the cutaneous manifestations were quite unchanged. The same weeping, crusted, ichthyotic eczema was present as at the time of entrance. Three

months later there was a second attack of nephritis, which lasted two or three months. Gaucher and Nathari considered this case to be a remarkable example of visceral metastasis in the course of a chronic dermatosis. Their theory in regard to the case was that subjects attacked by extensive dermatoses, especially eczema and psoriasis, become auto-intoxicated. In them a lowering of nutrition due to disturbances of the nitrogenous metabolism can be easily demonstrated.

Erythema Scarlatiniforme, A case of. GARDINER. *Brit. Jour. Derm.*, August, 1908.

The patient was a woman, forty-eight years of age. Ten years ago she had had a slight eruption on the chest similar to that now present, which yielded promptly to treatment. The patient was first seen in October, 1907. The first sign of the present illness was a rash on the front of the chest accompanied by a mild itching and burning. The only likely etiological factor in the history was of constipation and long standing indigestion. Temperature was normal. The rash was scarlatini-form and of a dull red color. In six days its steady spread had involved the whole body. The tension over the face was great and the eyelids were markedly swollen. The burning and itching increased until at the end of ten days the patient was acutely ill and exhausted from loss of sleep. The temperature never rose over 99° , but the pulse was rapid. Within a fortnight exfoliation in large sheets began, first on the chest and thence gradually extending over the other parts. An unusual complication was a complete generalized alopecia and the shedding of the nails. Four months later the patient was quite well and the hair had all grown in again. Gardiner considers the eruption to have resulted from a toxæmia in a patient whose skin was more susceptible than usual to the irritation of the poison. The rational treatment, he says, would be the administration of intestinal antiseptics. He commends for this purpose the use of carbolic acid xx-xxx grains daily, as recommended by Stelwagon, or the administration of lactic ferment. All that can be expected is to mitigate the symptoms as the damage has already been done.

Pruritus, the Erythemata and Urticaria. A study of the internal disturbances occurring in connection with . . . with especial consideration of the gastro-intestinal canal. SPIETHOFF. *Archiv. f. Derm. u. Syph.*, 1908, xc. 179.

It is Spiethoff's belief that the general idea of the difference between an auto-intoxication and an intoxication is so vague that many diseases which were in reality due to an intoxication have been wrongly attributed to an auto-intoxication. The group of diseases which can rightfully be assigned to the auto-intoxications is small. The confusion results in part from the fact that the intoxications can cause the same reactions in the skin as the auto-intoxications. In short, the stimulus is specific, whereas the reaction is not. Spiethoff adopted as his standard Müller's view that an auto-intoxication is "a poisoning by such sub-

stances as are created by the organism itself by means of its own life-processes; therefore, not by such poisons as are introduced from without nor by such poisons as are produced, within the body it is true, but by stranger life-processes (uræmia, eclampsia, gout, etc.)." Auto-intoxication, therefore, is a result of a pathological process in the digestive canal itself.

Spiethoff utilized the demonstrated fact that under certain conditions a digestive disturbance will manifest itself in the urine by an increase in certain substances such as scatol, indol and the sulphuric ethers by using this increase as an index of the presence or absence of such digestive disturbances. He found that it was unnecessary to test the urine for any of these substances except indican, as he was able to prove that the increase in the amount of indican paralleled the increase of the others. These various substances are no longer considered to have any etiological value, but they nevertheless do have a symptomatic value in relation to digestive disturbances. In order to give the true value to the results there are several facts which must be remembered. Simple constipation dependent solely upon disturbances of mobility and uncomplicated by a pathological process does not cause an increase in the amount of indican in the urine. If there is indicanuria in obstipation unaccompanied by any gastric disturbance or by any pathological process which has led to albumen destruction and thereby to the formation of indol, the primary cause is in the small intestine or the pancreas. Further indican will appear in the urine even though the pathological process which has caused the breaking down of the albumens and the formation of indol lies outside the intestine in another part of the body.

In every case the patient was given a test meal. Three-quarters of an hour later the stomach contents were removed and analyzed. The urine was tested daily for indican and frequently for albumen and sugar. As there is fluctuation daily in the amount of indican, no attention was paid to an occasional increase. It was only when the increase persisted steadily for a longer or a shorter time that any significance was attached to the rise. The indican tests, therefore, must be continued over a considerable period to have value. For test purposes either the twenty-four hour or the morning urine should be used. For convenience Spiethoff used the morning urine, which contains more indican than the twenty-four hour. The urine of the day contains less. In addition to those already mentioned, tests were also made of the urine-pepsin-digestion, the feces were inspected for ova, and in special cases Sahlis' reaction was used to test the pancreatic conditions and tests of alimentary glycosuria were also made. Jaffe's method was used to determine the amount of indican.

Spiethoff reports two series of cases, the first including infants and young children, the second adults only. In the first series, of 11 children with strophulus 5 had gastric subacidity; only 3 showed a pronounced indicanuria; in one ascariasis and subacidity occurred together. Ten cases of uncomplicated eczema out of a total of 15 showed evidence

of gastro-intestinal change, and 71.4% of 21 cases of both complicated and uncomplicated eczema. Spiethoff's result did not verify the French view that there is a direct etiological connection between infantile eczema and an abundant production of lactic acid by fermentative processes. In regard to the rôle of the food salts in the production of infantile eczema, Spiethoff concludes that it is perhaps not proved that they do not play a certain part in so far as they still further reduce by combining with it the already diminished hydrochloric acid. In his opinion it is not far wrong to say that the true causes of eczema are exogenous factors, the daily irritation of a tender skin and perhaps the irritation of light. He believes also that eczema is often secondary to pruritus, although this is hard to prove in young children, as in them as in adults, the eczema may outlast the original cause.

Protection and the removal of all irritation will accomplish much in the treatment of infantile eczema. It does not matter much what therapeutic agent is chosen for the external treatment, as the result depends less upon the use of any special medicament than upon the fact that no drug should be used that is not distinctly indicated, that the dosage must be appropriate and that the drug selected should eventually be combined with others. The internal treatment should be appropriate to the conditions and should include a proper dietary. Once begun, treatment should be pursued carefully and persistently to the very end.

The second series contains the results in adult cases of urticaria, erythema, pruritus and eczema. Of 15 cases of pruritus, including 10 senile cases, the tests revealed the presence of internal complications in 87% of which 75% were anomalies of digestion. Excluding the cases developing after pruritus, 15 cases of eczema were examined. Digestive disturbances were demonstrated in 53% (8 cases); subacidity in 5, peracidity in 3. Eleven secondary eczemas showed internal disturbances present in 91%—75% digestive. Therefore the 26 cases of eczema showed intestinal disturbances in 69%, while 62% of these disturbances were digestive.

Combining the two series analysis shows that altered gastric conditions were present in 38 of the total of 67 cases—subacidity in 27, peracidity in 11. Indicanuria was found 12 times in 59 systematic examinations—7 times with subacidity, once with peracidity, 4 times without demonstrable gastric disturbances.

"Urine-pepsin-digestion" was strikingly delayed by in acidity, but with more or less pronounced subacidity was much accelerated and often accompanied by indicanuria.

In 5 cases out of 11 tested trypsin ferment was found together with an increase in indican.

Spiethoff concludes that the manner in which the digestive anomalies react upon the general organism or single organs, still remains an open question which, however, revolves around auto-intoxication and intoxication. If the disturbances in the digestive glands affect the intermediary matter changes, it is a true auto-intoxication.

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PARAPSORIASIS: A RESISTANT MACULO-PAPULAR SCALY ERYTHODERMIA, WITH A REPORT OF THREE CASES, TOGETHER WITH PATHOLOGICAL HISTOLOGY.

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AS in other types of cutaneous disease, cases of anomalous or apparently hybrid scaly eruptions have been from time to time encountered. Lailler in 1871 observed a scaly eruption which he regarded as pityriasis rubra, and of which Baretta made a model for the museum of the Hôpital St. Louis. A duplicate placed in the Royal College of Surgeons of England was labeled by Sir Erasmus Wilson, in 1873, "*lichen planus retiformis*." This model has since been identified by Radcliffe Crocker as belonging to the group of dermatoses which forms the title of this paper.¹ It was not, however, until Unna, in connection with Santi and Politzer, published a description of two cases in 1890,² under the name of *parakeratosis variegata*, that the subject attracted special attention. The next to make note of this condition were Jadassohn (*eigenartiges psoriasiformes und lichenoides Exanthem*, *Dermatitis psoriasiformis nodularis*) and Neisser (*psoriasiformem und lichenoidem Exanthem*), who presented cases before the Deutsche Dermatologische Congress in 1894, which have been recognized as belonging to this group.³ With Brocq's description of what he termed "*erythrodermie pityriasique en plaques disséminées*" in 1897,⁴ there soon appeared a number of cases reported by observers in different countries, which, while presenting certain differences, are now thought to belong to the same group—if not forming a distinct affection. The same year Juliusberg reported a case of

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"Pityriasis lichenoides chronica,"⁵ while Pinkus⁶ and Róna⁷ followed with reports of similar cases. A year later Eudlitz⁸ presented a child before the Société Française de Dermatologie, with an eruption of four months' standing, which he called "Psoriasis en gouttes d'aspect syphiloïde." Brocq includes this case in the type parapsoriasis, a term he has since proposed for this disease. In Great Britain, Jamieson exhibited three cases of a unique scaly exanthem before the British Medical Association in 1898, two of which Unna regarded as indubitable examples of parakeratosis variegata.⁹ The first to make note of this condition in America was J. C. White, who reported two cases before this association in 1900,¹⁰ which he regarded as counterparts of those described by Brocq. In 1901 Radcliffe-Crocker published a report of two cases, presented before the Dermatological Society of London, which he called "Lichen variegatus."¹¹ Ravogli,¹² in 1901, reported what is probably the third American case, in a child three years of age, under the name "Erythroderma squamosum." A case was likewise reported by Casoli¹³ in Italy at this time, which Brocq includes in *les parapsoriasis*. Later in the same year (1901) a case of parakeratosis variegata was reported by T. Colcott Fox and J. M. H. Macleod,¹⁴ who gave an exhaustive analysis of the cases thus far recorded, and drew the conclusion that while the cases collected presented certain minor variations, yet the more distinctive features were well defined and constant, which entitled them to be classed as a separate affection, for which they proposed the provisional name of Resistant Maculo-Papular Scaly Erythrodermias.

More recently, 1903, C. J. White¹⁵ reported the third case seen in Boston, and entered more at length into the etiology of the condition.

In this connection I wish to report three cases observed during the past year, which, I believe, answer in the main to the descriptions of the cases, under various names, cited above.

CASE 1.—V. T. A., male, aged 25, American, school teacher. Presented himself November 11, 1907, with a scaly eruption which covered nearly the whole body.

Family History: His mother is said to have died of "dropsy" following "asthma," at the age of 57. Father still living and enjoys good health. The only disease the father can recall is that of "boils" observed several years ago, which were supposed to be occasioned by scratches in trimming a hedge. The patient has two brothers older than himself who have always been well.

Previous Condition: The patient has likewise enjoyed good general health all his life; although being troubled sometimes in summer by a slight looseness of the bowels. The present disease began five years ago: first appearing during the winter, and was most noticeable on the trunk, although to a less extent the extremities were likewise involved. During the first year or two the eruption almost completely disappeared during the summer months. After the second winter, however, it became permanent and more marked, or "thickened," as he expressed it. He has observed during the summer that the parts exposed to the sun, viz., the forearms, have a tendency to recover their normal condition, and he believes that copious perspiration has likewise beneficent effect. The face, hands, scalp and feet have been almost entirely free.

Present Condition: Patient is strong, robust, is florid, and weighs 202 pounds; height, 5 feet 9 inches. His teeth are sound, one having been removed. The mucous surfaces of the pharynx and buccal cavity are normal, with the exception that the former is slightly congested, which the patient attributes to a "cold." The superficial lymphatic glands are palpable. Nearly the whole surface of the body is covered with a reddish papulo-squamous eruption, most marked on the trunk and proximal end of the extremities. The only parts that enjoy immunity are the face, scalp, hands and feet. On the parts first mentioned, nearly the whole cutaneous surface is involved with pea to dime-sized maculæ, varying from a yellowish to dusky red color. Most of these lesions are covered with a few loosely adherent scales. Here and there large papillæ are seen, of a more pronounced dark color, about the size of a lentil, flattened at the apex, some of which are covered with light yellowish scales of varying thickness. The color of the eruption is therefore not uniform, and is deeper and of a bluish-red tint on the lower part of the trunk. Intervening between the lesions are small areas of normal skin, giving to the whole surface a somewhat variegated or reticulated appearance. On scratching, the denuded area does not show hæmorrhagic puncta. The subjective symptoms are for the most part negative, although the patient says when heated a slight itchiness is sometimes felt.

The case was regarded as an anomalous form of psoriasis of the guttate variety with the abortive formation of scales, and appeared to be quite amenable to treatment.

He was given an ointment composed of salicylic acid and tar; in short, the ordinary treatment for mild cases of psoriasis.

He returned at the end of the month with but slight improvement, and upon further examination it was apparent that the eruption was not a simple psoriasis, but corresponded to Brocq's description of "*les parapsoriasis*." ¹⁶ Since which time, the patient has been under observation and has been given a trial of arsenic internally, as well as various preparations to be applied to the skin, without, so far as I am able to ascertain, any marked improvement.

In June, 1908, the case was presented to the dermatological section of the American Medical Association at its meeting in Chicago.

Some members present of wide experience promptly pronounced it a case of psoriasis, while others recognized it as belonging to the rare group of scaly eruptions previously described under various names.

It was suggested, by way of treatment, that mild or soothing applications be made, such as the glyceride of starch and zinc. A letter from the patient a few days ago tells me that the mild applications, he thinks, are less effective than the stronger ones at first used.

Soon after this case was first seen, another came under observation, of a more decidedly psoriatic appearance, and without the papules, which were a prominent feature in the case above described. Were it not for the published cases of Brocq's group of *les parapsoriasis* before me, the case next to be described would have been classed as psoriasis, notwithstanding it was somewhat allied in appearance to seborrheic eczema.

CASE 2.—B. V., female, aged 33, Italian, presented herself with a scaly eruption. Nothing worthy of note could be elicited from the family history.

The previous history of the patient showed that she had been married thirteen years, and had four children all of whom are still living and well. She had had a skin disease ten years ago, which she said was dry and scaly. It remained three or four years after which she was free until two years ago, when the present eruption came.

Present Condition: The patient is well nourished and appears unusually strong. The eruption is symmetrically distributed and seems to be almost wholly confined to the extremities. It is most abundant on the flexor surface of the middle third of the arms and to a less extent on the corresponding position of the legs. There is a slight mottling of the face over the malar bones, suggesting the so-

called butterfly-shaped lupus erythematosus. The lesions are macular, varying from a pinkish to a fawn color, dry, scantily covered with scales, and are roundish or oval in shape. In some instances they coalesce forming larger plaques. In the central area of some of the plaques the eruption is less marked as if resolution were taking place. The disease has not invaded the scalp, nor has it appeared to a noticeable extent on the face, hands or feet. The eruption has always been dry and there is slight itching only when the patient becomes warm. At other times there are no subjective symptoms. The mucous membranes are not involved and no enlargement of the superficial lymphatic glands can be detected.

The treatment consisted of that usually employed in psoriasis, but was followed by no perceptible improvement.

The case is still under observation.

CASE 3.—F. H., male, aged 52, native American, farmer by occupation, entered the surgical ward of Lakeside Hospital complaining of a painful affection of the neck, which the skiagraph showed to be a slight enlargement or exostosis of the right lateral process of the second cervical vertebra. While awaiting an operation for the relief of this affection, a peculiar mottled, or variegated papulo-scaly eruption was noted.

The family history is negative.

The previous history showed that he had always enjoyed good health until about a year ago when he noticed pains in the neck which have continued and for which he seeks relief. The patient says the present eruption began about three months ago, but as it was unaccompanied by subjective symptoms, the exact time of its appearance could not be given.

Present Condition: The patient is a spare, tall man, slightly anaemic, although enjoying fair health. The eruption came without apparent cause, is symmetrically and widely distributed, most marked on the trunk and extremities, but one or two spots are also seen on the hands, while the face, scalp and feet remain comparatively free. There is one small reddish pin-head sized lesion on the palm of one hand. On the trunk and proximal portion of the extremities the eruption is well marked, consisting of maculae of a pinkish-fawn color, dry and slightly scaly, together with a sprinkling of reddish papules about the size of lentils or small peas. The first glance suggested a luetic eruption, but on further inspecting different parts of the body, this was found untenable. The mucous membranes were not involved, excepting a slight congestion of the pharynx.

There was a marked enlargement of the superficial lymphatic glands. The skin disease seemed to be an exact counterpart of the first case herein reported. With the failure of therapeutic measures previously adopted and thinking, possibly, mercury might cause absorption of the exostosis, intramuscular injections of mercury bichloride were given for nearly ten days. As no perceptible amelioration followed at the end of this time, and as the patient was desirous of returning home, an operation for the removal of the exostosis was performed by Dr. G. W. Crile and all other treatment discontinued. During the few weeks at the hospital no perceptible change could be observed and the patient returned to his home in Illinois, relieved of the cervical pains but with the eruption unchanged.

Clinically, cases number one and three are identical, and correspond to the papulo-scaly eruptions described by Unna, Jadassohn, Neisser, Pinkus, Róna, Eudlitz, Juliusberg, Crocker, Colcott Fox and Macleod, while case number two belongs to the purely squamous type and occupies a clinical position between psoriasis and eczema seborrhoicum. It corresponds to Brocq's tenth case, while it differs from the three cases observed by J. C. and C. J. White, which I think correspond to Brocq's third variety.

Pathological Histology

A review of the pathology of parasoriasis shows a marked and unexpected uniformity in the findings, no matter under which of several clinical designations the individual cases are described.

Review of the Changes Noted in the Literature:

The two cases described by Unna, Santi and Pollitzer² in 1890 as parakeratosis variegata showed epidermal changes of which the most important were the presence of nuclei in the thickened horny layer, dilatation of the intercellular channels of the prickle layer and distension of the nuclear spaces in the prickle and palisade layers, and a general thickening of the epidermis. In both cases the granular layer was present, but the description leads one to believe that it was not so well developed as normal. The superficial portion of the corium showed marked capillary dilatation and a pericapillary infiltration by round cells which the authors consider of connective tissue origin.

In Pinkus' case⁶ of "psoriasiformem und lichenoidem Exanthem" there were areas of thickened, nucleated horny layer alternat-

ing with non-nucleated areas. The histological description deals chiefly with these superficial changes and little is said of other epidermal changes. The papillae were thickened, shortened and somewhat flattened. About the deeper vessels of the corium there was present an infiltration by small round cells. According to Pinkus the infiltrating cells present in the papillae and in the epidermis were polymorphonuclear leukocytes.

In Juliusberg's cases⁵, published in 1899 under the designation *pityriasis lichenoides chronica*, the stratum corneum was nucleated, not thickened and formed a scale upon the surface. He gives few details of the changes in the epidermis, but states that the most marked change was present in the corium. Here there were bands of infiltration along the blood vessels, more marked in the papillae than in the deeper corium. The infiltration was composed of mononuclear and polymorphonuclear cells, among which were plasma and mast cells in considerable numbers. The vessel lumina were not compressed. He concludes from his microscopic study that the lesion is produced by a combination of two processes, a parakeratosis and a very superficially situated, slight, inflammatory process. He thinks it impossible to decide which of these is primary or more essential, but seems to feel that the inflammatory process is not the primary condition.

J. C. White¹⁰ in 1900 gave a detailed description of the changes present in lesions from two cases which were placed under Brocq's *erythrodermie pityriasique en plaques disseminées*. Here, again, the striking feature was the oedema of the papillae and of the epidermis. The stratum lucidum was absent in both cases and the stratum granulosum was abnormal and in places entirely wanting. In one case the horny layer was thinner than normal, in the other the thickness varied greatly. In both, the superficial layer contained no nuclei. This absence of nuclei in the horny layer is the chief point in which White's cases differs from those described by Unna, Santi and Pollitzer, by Pinkus and by Juliusberg. White considered the infiltrating cells about the dilated capillaries of the corium to be lymphocytes.

Colcott Fox and Macleod¹ in 1901 described in great detail the changes in a case of *parakeratosis variegata*. Their summary deserves repetition:

"1—Dilatation of the sub-epidermal capillaries.

2—Flattening of the papillary body.

3—Oedema affecting the fibrous stroma near the dilated vessels.

- 4—Œdema and rarefication of the collagen; stains badly.
- 5—Elastin does not stain well.
- 6—Infiltration of small cells like lymphocytes with a few polynuclear leukocytes among them. Neither plasma cells nor mast cells found.
- 7—Thinning of the overlying epidermis.
- 8—Interepithelial œdema and presence of leukocytes.
- 10—Œdema of the granular cells; occasional absence of them.
- 11—No stratum lucidum detected.
- 12—Stratum corneum showing tendency to desquamate.
- 13—Only here and there could imperfectly cornified cells be found retaining nuclear remains.
- 14—Where these latter cells were present the granular layer was deficient."

Brocq's paper of 1902,¹⁶ "Les Parapsoriasis," gives no histological data, but concludes that under parapsoriasis are to be included a number of closely related clinical conditions. His paper of 1903¹⁸ comes to the same conclusions and says that certain histological changes are common to the entire group. "Histologically this group is characterized by an infiltration of round cells about the dilated capillary vessels, by a flattening of the papillæ and a marked tendency to their disappearance; by a marked œdema of the upper layers of the derma, and of the epidermis; by an almost complete disappearance of the germinative layer; by a dilatation of the intercellular spaces in the prickly layer; by an œdema of the granular layer which is wanting in places; by the absence of the stratum lucidum; and by the absence of nuclei in the horny layer, except over places where the germinative layer is absent—at these points the nuclei persist in the horny cells."

Bucek¹⁹ in 1903 reached the same conclusions as did Brocq, namely, that despite the clinical variations in the group there are, histologically, more points of resemblance than there are of difference. Histologically the group is characterized by the presence of an inflammatory process of medium grade involving the epidermis and the upper part of the cutis.

C. J. White's case¹⁵ of erythrodermie pityriasique en plaques disséminées, published in 1903, showed changes very much like those present in the two cases of J. C. White¹⁰. The horny layer contained no nuclei, the stratum lucidum was absent and the stratum granulosum was abnormal and in places absent. The papillae and the epidermis were œdematous.

It will be noted that, no matter what is the clinical nomencla-

ture used, the lesions described by the various authors reviewed above have in common a marked condition of œdema of the epidermis and of the papillæ, absence of the stratum lucidum, well-marked dilatation of the papillary capillaries, and a moderate degree of infiltration by small round cells. The only point about which there is a difference of opinion is the presence or absence of nuclei in the horny layer. In the cases of erythrodermie pityriasique en plaques disséminées, two of J. C. White¹⁰ and one of C. J. White,¹⁵ the stratum corneum contained no nuclei and the stratum granulosum was more or less incomplete. In the cases of parakeratosis variegata of Unna, Santi and Pollitzer² and in the case of pityriasis lichenoides chronica of Juliusberg⁵ the stratum corneum was nucleated. Colcott Fox and Macleod's¹ case of parakeratosis variegata and Pinkus' case⁶ of "psoriasiformen und lichenoidem Exanthem" occupy an intermediate position, as regards the presence of nuclei in the horny layer, between the cases of Unna, Santi and Pollitzer and of Juliusberg on the one hand, and those of J. C. White and C. J. White on the other. That the persistence of nuclei in the horny layer is a matter of secondary importance and that it is dependent upon the degree of œdema will be shown later. I think that one must, therefore, agree with Brocq and with Bucek in their conclusions that the conditions included in the parapsoriasis group have much in common—that, histologically, the points of resemblance between erythrodermie pityriasique en plaques disséminées, parakeratosis variegata, pityriasis lichenoides chronica and "psoriasiformem und lichenoidem Exanthem" are more numerous and more important than the points of difference.

From the pathological standpoint the chief points at issue may be stated as follows: Are the histological changes found in the various clinical conditions grouped together under parapsoriasis uniform enough to permit of pathological grouping? Is the presence or absence of nuclei in the horny layer of sufficient importance to enable one to subdivide the group? What is the relationship of the epidermal changes to the œdema? What causes the capillary dilatation and the œdema? What is the sequence of events which leads to the fairly uniform microscopic picture presented by the various members of the group under consideration? In what way do the changes described differ from those found in psoriasis, in lichen and in seborrheic eczema? The case to be described will help to elucidate a number of these points.

The published reports give one little help in arriving at an ex-

planation of the manner in which the changes described were produced. All of the authors have concerned themselves chiefly with the changes occurring in the epidermis. They devote little attention to the possibility of involvement of the deeper corium, or briefly state that the deeper layers of the corium were normal. Brocq¹⁶ believes that the pathogenesis of parapsoriasis is the same as that of psoriasis. His statement, that in the members of the parapsoriasis group we are dealing with simple modes of cutaneous reaction, special to certain individuals, permitting the development of the lesions from slight causes of the greatest diversity, is too ingenuous to shed much light upon the subject. Only in C. J. White's report¹⁵ does one find anything which would help one to explain the production of the lesions. His patient had an obliterating arteritis involving the arterioles and sparing the larger arteries. This condition had led to gangrene of a toe. The changes found in the case to be described show that C. J. White did not overestimate the importance of these vascular changes when he concluded his paper with the following questions: "Is not the intercurrent of this strange arteritis of the arterioles of the toe a significant fact in relation to the general cutaneous disease? In other words, have we not here a possible or even probable clue to the genesis of the whole process?"

Our first case, the clinical side of which has been given in the first portion of this paper is important, because the microscopic findings are such as to help explain the production of the changes previously described by other observers, and because the several lesions removed show changes similar in character but varying in degree. This variation in the intensity of the involvement helps to explain certain of the differences that have been noted in the various clinical conditions grouped together under parapsoriasis. Five lesions were removed and examined microscopically. Of these, one shows changes which are apparently somewhat earlier than have been previously noted, another shows a more intense degree of involvement than has been reported, while the remaining three are much like each other and show changes like those described by other writers.

DESCRIPTION OF HISTOLOGICAL FINDINGS.

A: Lesion Showing Earliest Changes:

Epidermis: In the lesion showing the most recent change (Figure 1) one finds at the margins normal epidermis covering normal

cutis. The horny layer (a, Figure 11A) in this normal marginal zone averages seven lamellae in thickness and contains no nuclei. The stratum lucidum (b, Figure 11A) is one cell thick, in places two cells thick, non-nucleated, the granules fine and very numerous. The stratum granulosum (c, Figure 11A) is in most places two cells thick, the cells being filled with granules of rather larger size than those in the layer above. The nuclei of the stratum granulosum are shrunken, irregular in outline and, as a rule, deeply stained. The stratum spinosum is eight to twelve cells thick. Some of the nuclei of the uppermost layer (d, Figure 11A) begin to show the alterations present in the nuclei of the stratum granulosum. The thickness of the epidermis, in the region described, is seventy-nine micra over the papillae and one hundred and thirty eight micra between the papillae.

As one approaches the area of greatest change one comes upon a zone in which the stratum lucidum has disappeared (Figure 11B). The stratum corneum (a, Figure 11B) contains pale, much flattened nuclear remnants, which lie in rather wide perinuclear spaces. The number of lamellae is smaller than normal, although the thickness of the stratum corneum here is about the same as over the normal skin. The granular layer (c, Figure 11B) is composed of a single layer of cells, whose nuclei do not show so marked a degree of condensation as in the normal epidermis. The nuclear spaces are dilated. Beneath the granular layer the prickly layer (d, Figure 11B) shows considerable œdema of the intercellular channels and some dilatation of the nuclear spaces. Only an occasional nucleus in this region shows any evidence of loss of fluid and consequent condensation. The middle point of the region illustrated by Figure 11B is only one hundred and ten micra distant from the marginal normal epidermis shown in Figure 11A.

In the region showing the greatest amount of involvement (Figure 11C) both the stratum lucidum and the stratum granulosum are entirely wanting. The stratum corneum (a, Figure 11C) varies in thickness and the individual lamellae are so swollen as to be spindle shaped. The nuclei are rich in fluid and contain considerable chromatin. In the upper portion of the prickly layer (d, Figure 11C) many of the nuclei show irregularities in shape. The nuclear and intercellular spaces are dilated. Deeper down in the stratum spinosum (Figure 12) the œdema becomes very marked. The individual cells are widely separated from each other. The intercellular protoplasmic processes persist as long, fine strands spanning

the much dilated channels (a, Figure 12). An increase in the amount of fluid in the perinuclear spaces has led to a distension of these spaces. In those cells in which this dilatation is most marked, and about which there is œdema of the intercellular spaces, the cytoplasm is represented by a narrow band of compressed, deeply stained material which has a fibrillated appearance. In such cells the nuclei may also show evidences of compression. They are irregular in shape (b, Figure 12) and stain more deeply than normal. Lymphocytes (c, Figure 12) are present in small numbers in the dilated intercellular channels. The stratum mucosum (a, Figure 13) in this more intensely involved area is composed of a single layer of low cylindrical cells. In this layer œdema has also led to distension of the nuclear spaces, to dilatation of the intercellular channels and to vacuolization of the cytoplasm. Many of the nuclei are flattened and stain rather deeply. In the stroma of the papillae, just beneath the palisade layer, there is a row of fluid filled spaces (b, Figure 13). In spite of the œdema an occasional mitotic figure is seen.

The central point of the area shown in Figure 11C is only fifty-eight micra distant from the center of Figure 11B, and one hundred and sixty-eight micra from the normal epidermis shown in Figure 11A. Figures 12 and 13 are from the same region as Figure 11C. Here the epidermis is fifty-eight micra thick over the papillæ, and one hundred and fifty-five micra thick between the papillæ. As compared with the normal epidermis there has been a thinning of the epidermis over the papillæ and some increase in interpapillary thickness, the latter in spite of an actual decrease in the number of cells. The thinning over the papillæ is due to the disappearance of the granular layers and to a decreased production of cells, whereas the increased thickness between the papillæ is due to the inter- and intra-cellular œdema. The œdema may be so marked as to lead to the formation of minute, microscopic vesicles beneath the horny layer (Figure 1).

Corium: In that region of the most recent lesion which shows the greatest amount of change, the papillæ are swollen and increased in diameter. The capillaries are dilated, and the stroma of the papillæ is almost disorganized by extensive œdema (Figure 2). Young, spindle-shaped, connective tissue cells are present, as are also lymphocytes. An occasional polymorphonuclear leukocyte is also seen. Deeper down in the corium there are also evidences of œdema. The collagen fibers are swollen, they stain more faintly than normal, and their nuclei are compressed and few in number. The elastic fibrils

are widely separated by the œdema and are very fine. The vessels of the deeper corium show certain changes which will be considered in detail in the description of the next section.

B: Lesion Showing Most Advanced Degree of Involvement.

Epidermal Changes: Sections from the lesion showing the most marked change (Figure 3) show certain changes which have not heretofore been described. From a small central area of this lesion the epidermis has entirely disappeared, leading to the formation of a microscopic ulcer. At the margins of this superficial ulceration the epidermal cells are closely packed together and their nuclei are compressed and deeply stained. The cytoplasm is granular, deeply stained and structureless. The margins of the ulcerated area show no evidences of acute inflammatory change. Beyond the marginal zone the epidermis shows all the changes described in the first lesion, but to a more marked degree. The œdema is so marked that the nuclei are often compressed into deeply stained crescents lying at the margins of greatly distended nuclear spaces.

Changes in the Corium: At the base of the ulcerated area (Figure 4) the collagen fibers are broken and granular. Both the connective tissue and the lymphocyte nuclei are pyknotic and fragmented. Papillæ are entirely wanting in this area. The papillæ at the margins of the ulcerated area show, even to a more marked degree, the capillary dilatation and the interstitial œdema mentioned above. These changes have transformed the tissue of the papillæ into a large meshed network of wide capillaries and connective tissue fibers (Figure 14). Lymphocytic infiltration is more marked in this lesion than in the one first described. In the palisade layer (c, Figure 14) the œdema has led to the formation of very large, fluid-filled nuclear and intercellular spaces (d, e, Figure 14).

In the observations of others, the œdema of the epidermis and of the papillæ receives a large measure of attention. In our case, also, it is so striking as to lead one at once to think of the possibility of changes in the lymphatics of the corium. Except for slight swelling of the endothelium and a moderate dilatation of the lumina the lymphatics appear normal (Figure 8).

In all the sections of all the lesions removed the blood vessels of the deeper corium are unduly prominent. With a low magnification (150 diameters) the vessels appear as very cellular areas scattered about in the corium beneath the epidermis showing the most marked change (Figure 3). The earliest vascular change to be seen is an increase in the size and in the number of the endothelial cells (Fig-

ure 5). The endothelial hypertrophy and hyperplasia are limited to the rather wide, thin-walled venules of the corium, although the arterioles show a certain amount of endothelial swelling. The changes in the endothelium of the veins soon become associated with perivascular inflammatory changes, which manifest themselves by a proliferation of connective tissue with the formation of young fibroblastic cells and by an infiltration of small mononuclear leukocytes (Figure 6). No plasma cells are present in the areas of perivascular inflammation. The end result of the combination of endothelial hypertrophy and hyperplasia with perivascular proliferation and infiltration is a complete obliteration of the lumina of the veins (Figures 4 and 7).

In sections from the lesion showing the most marked involvement (Figure 3) the nerves of the corium are unusually well seen because of their increased size. Nerve bundles so superficially situated as two hundred micra beneath the lower surface of the epidermis may have a diameter of forty micra (Figure 9). A transverse section at almost any plane through one of these swollen nerves shows four or more nuclei of the sheath of Schwann and an undue amount of internuclear tissue. The nerve bundles are surrounded by dilated, fluid-filled spaces. Changes of the nature described are seen only in sections from the most intensely involved lesion.

C: Oldest Lesion.

The remaining lesions excised and studied show changes neither so early as those described in the first lesion nor so intense as those described in the second. They show, of course, a certain amount of variation, but in general seem to be more of the type of lesion which has been described in the literature.

Epidermis: The epidermis is considerably thickened, the actual thickness being often difficult to determine because of the partial separation and splitting of the horny layer. The thickening is due partly to a general increase in the thickness of the prickle cell layer and partly, in places, to a marked increase in the thickness of the horny layer (Figure 10).

The stratum corneum, in places, is composed of wavy lamellæ, often partially separated from each other. As a rule, the nuclei are visible as elongated, very thin, much compressed and deeply stained bands (Figure 15A). In the deeper portions of the greatly thickened areas of horny layer the individual lamellæ are unusually thick and their nuclei are not so compressed as in the more superficial portions (Figure 15B). The internuclear substance of these

thickened lamellæ has a granular appearance, due to the presence of innumerable minute vacuoles.

The stratum lucidum is entirely wanting. The absence of cells of the stratum granulosum type is not complete. Areas in which no granular cells are present alternate with others in which one or two layers of cells of the granulosum type are present. In the latter regions the horny lamellæ are non-nucleated. It is in the areas where no granular cells occur that the thickening of the lamellæ and the persistence of their nuclei are most marked.

The cells of the stratum spinosum are large and the alveolar character of the cytoplasm can be well seen. The intercellular spaces, while readily visible, are not nearly so dilated as in the first lesion described. The majority of the nuclei are pale and vesicular.

The stratum mucosum is composed of cells of a low cylindrical shape, thicker and shorter than in the first lesion described, and with not nearly such marked evidences of œdema. The nuclei are rounded and not so much compressed. Evidences of nuclear division are more numerous than in the early lesion.

Corium: The papillary capillaries are not very prominent and the œdema of the stroma has almost entirely disappeared. Only a few lymphocytes are present, although young connective cells are fairly numerous in the superficial layers of the corium. The papillæ are shorter, thicker and less numerous than normal. Deeper down all the veins of moderate size are completely obliterated and the arterioles also show some compression because of the surrounding inflammatory change. In the areas of perivascular inflammation the prevailing type of cell is the fibroblast, lymphocytes having almost entirely disappeared. No plasma cells are seen.

SUMMARY OF THE HISTOLOGICAL CHANGES.

In briefly summarizing the histological changes described above, it may be said that the epidermis shows the well-marked œdema and the slight lymphocytic infiltration noted by other observers.

In the lesion first described, as one passes from the normal epidermis to that most involved, one notes the disappearance first of the stratum lucidum and then of the stratum granulosum. The lamellæ of the stratum corneum are much thickened and contain nuclear remnants. The papillæ show the marked capillary dilatation and interstitial œdema noted in all previously published descriptions.

In the second lesion described above the changes in the papillæ and in the epidermis have continued to such a degree as to lead to

the disappearance of several of the papillæ and of the overlying epidermis. This loss of tissue is not accompanied by the evidences of acute inflammation.

In the oldest lesion capillary dilatation and œdema have largely disappeared. The stratum corneum is much increased in thickness and its lamellæ are nucleated. The persistence of nuclei in the lamellæ and the absence of granular cells occur together in small areas separated from each other by areas in which the horny lamellæ are not nucleated, and cells of the granulosum type are present.

In all the lesions there are changes in the veins of the deeper corium. The cells of the endothelium are increased in size and in number. About many of the veins there is a well-marked zone of lymphocytic infiltration and of connective tissue proliferation. A considerable proportion of the vessels show complete obliteration of their lumina.

In the lesion showing the most marked involvement the nerves of the deeper corium are unduly prominent because of an increase in the tissue of the sheath of Schwann and because of a dilatation of the perineural spaces.

THE PRODUCTION OF THE CONDITION KNOWN AS PARAKERATOSIS.

Unna, Santi and Pollitzer described their cases as parakeratosis variegata, and, according to Unna, parakeratosis is a term applied to the condition in which there results the formation of more or less swollen, nucleated horny lamellæ, which tend to remain united to each other to form scales. Besides these changes in the horny layer, the condition is also characterized by the disappearance of the stratum lucidum and of the stratum granulosum. In order to arrive at an explanation of the production of these changes it is necessary to review the normal process of the cornification of the epidermis.

The work of R. Hertwig and his pupils upon protozoa has established that for every protozoan cell there is a definite relationship between the size of the nucleus and the amount of the chromatin on the one hand, and the size of the cell and the amount of the cytoplasm on the other. Enough work has been done upon the tissue cells of metazoa to indicate that for every type of tissue cell there exists a similar definite relationship. A variety of conditions may alter or upset this normal relationship, but function and nutrition seem to be the most important. If this nucleus-plasma rela-

tionship doctrine of R. Hertwig is applied to the cornification of the epidermis the process is one, not of specialization and differentiation, but of gradually progressing physiological degeneration which leads ultimately to cell death. While the horny lamellæ of the epidermis have a protective action, this function is a purely mechanical one. It seems safe to assume that the only active functions possessed by any of the epidermal cells are nutrition and multiplication in the cells of the deeper layers. As the cells approach the surface, even these functions become gradually lost. As the cells become pushed away from the underlying tissue of the corium they lose first the power to divide and then the power to assimilate. As the distance of the cells from the capillary vessels of the corium becomes increased the cells undergo a gradual loss of fluid. This leads, in the upper prickle cell layer, to condensation of the cytoplasm and to shrinking and hyperchromatism of the nuclei. These changes, in addition to the loss of the ability to assimilate, lead to a disturbance of the normal nucleus-plasma relationship. This upset leads to an extrusion of chromatin from the nucleus, and there result compressed cells filled with scattered chromatin granules and containing nuclei poor in chromatin—the cells of the stratum granulosum. A continuation of the process leads to still further chromatin extrusion, the nucleus disappears entirely, and there are formed the cells of the stratum lucidum type. Associated with these changes in the distribution of the chromatin are gradually increasing solidification and degeneration of the cytoplasm. The combined cytoplasmic and nuclear changes are merely the evidences of a gradually progressing physiological degeneration which leads ultimately to death. The final death of the cell is manifested by the complete breaking down of the distributed chromatin and the transformation of the cell into a dried, non-nucleated, horny lamellæ.

If this conception of the normal process of cornification is accepted the explanation of the production of parakeratosis (the term being used here in Unna's sense to describe the epidermal changes and not as a clinical designation) becomes comparatively simple. Common to all the published descriptions of parapsoriasis are the dilatation of the capillaries of the papillæ and the œdema of the papillæ and of the epidermis. These same changes are well marked in our cases. It is these changes which lead to a disturbance of the normal mechanism of cornification and to the production of the phenomena of parakeratosis. Because of the œdema, the

epidermal cells do not undergo their normal gradual dessication, and they probably retain the ability to assimilate longer than normal. The upset of the nucleus-plasma relationship, as it occurs in the normal epidermis, does not occur in its regular way and with its regular succession of events. The cells, which in a normal epidermis become gradually dessicated and filled with extruded chromatin to form the stratum granulosum and the stratum lucidum, retain fluid. The relationship between nucleus and cytoplasm is not upset to such an extent as occurs in the normal granulosum and lucidum cells, and chromatin is not extruded from the nuclei. No cells of the normal granulosum or lucidum types are, therefore, produced. When, finally, the cells do reach the surface, they undergo a rather rapid and incomplete dessication which leads to the formation of dead, swollen, nucleated, horny lamellæ. The variations in the condition of parakeratosis which have been noted in the literature, that is, the incomplete absence of both the granulosum and lucidum layers and amount of œdema the more complete will be the disappearance of the granulosum and lucidum layers and the more prominent will be the nuclei of the horny layer. If the œdema is less intense there will occur in the epidermal cells changes more nearly approaching the normal process of cornification, with the resulting formation of non-nucleated horny lamellæ or the persistence of an irregular stratum granulosum.

THE COURSE OF EVENTS IN THE PRODUCTION OF THE CHANGES FOUND.

A study of the lesions which have been described in detail above seems to give one the succession of events which has led to the changes noted. The parakeratosis, as already stated, is the result of the papillary and epidermal œdema. This latter, in turn, is caused by the capillary dilatation. The distension of the capillaries must be considered an obstructive passive congestion, due to changes in and about the deeper veins of the corium. The vascular involvement must be considered the primary and basic change. This begins as an endothelial hypertrophy and hyperplasia. Perivascular infiltration and proliferation soon follow. The combination of changes within and about the vessels leads to narrowing and to final complete obliteration of the lumina of the veins. The arterioles may show endothelial swelling, but this occurs only after the periphle-

bitis is well marked. That the vascular changes may be secondary merely evidences of the varying degree of œdema. The greater the the formation of non-nucleated horny lamellæ—in other words, variations in the condition which lead to an approach to the normal—are to the changes present in the nerves of one of the lesions appears improbable, since the involvement of the nerves is seen only in the lesion which shows most marked vascular change and is not seen in the early lesion. The involvement of both the vessels and the nerves must be considered the result of some pathological process acting upon both.

The beginning of the process is seen in the first lesion described. In the second lesion the intensity of the change has led to a loss of tissue, the result of the marked vascular obliteration and consequent œdema.

In the third lesion described it would seem that one is dealing with an attempt at repair. The capillary dilatation has largely disappeared and the interstitial fluid is greatly decreased. Although almost all the veins are obliterated, this attempt at a return to normal must be due, in part, to the establishment of a collateral capillary circulation. The blood supply is still abnormal, but the return of the area to a circulation approaching the normal has led to a decrease of the interstitial œdema, and to a consequent approach toward the normal process of cornification on the part of the epidermis. Hence there is the formation of an incomplete stratum granulosum. The production of such a greatly increased horny layer as is shown in Figure 10 must be due partly to an increased food supply and a resulting hyperplasia. As already stated, mitotic figures are fairly numerous in the deeper epidermal layers of this lesion. A progressive process has become associated with the regressive change which initiated the lesion.

From the above remarks it will appear that the vascular involvement is considered the essential change, and that it is the cause of all the changes in the papillæ and in the epidermis. Such a conclusion has not been met with in the literature reviewed, and there naturally arises some question as to the constancy of its application and as to the possibility of the occurrence of similar involvement in previously described cases. Most of the observers have confined themselves to a description of the changes in the papillæ and in the epidermis. In the majority of the published reports no mention is made of the deeper vessels of the corium. Pinkus⁶ mentions the

occurrence of a small round-celled infiltration about the vessels. A study of his diagrammatic illustrations leads one to believe that the vessels must have shown a considerable amount of involvement. Juliusberg⁵ also mentions the presence of infiltrating cells along the blood vessels. In the two cases reported by J. C. White¹⁰ no vascular abnormalities are mentioned. In the illustrations accompanying the report the deeper vessels of the corium appear unduly prominent, in spite of the low magnification used. To C. J. White¹⁵ belongs the credit of having first called attention to the possibility of the relationship of vascular change to the skin lesions. It would seem, therefore, that vascular involvement is one of the most characteristic things in the histological picture of parapsoriasis. It is certain that such a change would explain the capillary dilatation and the œdema which have been noted in all the cases studied histologically. If one excepts the mention of the possibility of changes in the vessels by C. J. White the literature gives no adequate explanation of the production of the more superficial changes so uniformly met with in the descriptions given by previous observers.

CONCLUSIONS AS TO THE PATHOLOGICAL HISTOLOGY.

A review of the literature and the study of the case here reported lead to agreement with the conclusions reached by Brocq¹⁸ and by Bucek¹⁹ that the various members of the parapsoriasis group show many points of similarity.

There are, of course, some variations. These refer chiefly to the completeness of the absence of granular cells and to the presence of nuclei in the horny lamellæ. Such differences as have been noted can all be adequately explained by the varying degree of œdema present. The differences are not so essential as to permit a subdivision of the group. All the variations noted may be present in a single case, as in the one reported here. The first lesion shows changes most like those described by Unna, Santi and Pollitzer and by Juliusberg. The oldest lesion is, in general, much like that described by Pinkus, and it shows the variations noted by Colcott Fox and Macleod in their case. Some areas answer the descriptions given by J. C. White and by C. J. White. The occurrence of ulceration in one of the lesions of our case is not sufficient to give the case a position by itself. The ulcer is of microscopic dimensions, it was not noticed before the excision of the lesion, and it is extremely likely that similar losses of epidermis so slight as not to be seen by the naked eye may have been present in at least one of the lesions

in every case heretofore reported. The mere fact that such a condition was not seen in the single lesion studied from each of the cases reported cannot be considered evidence of very much weight. It must be borne in mind, also, that the ulcer in our case is not associated with any acute inflammatory changes, but is the logical final result of the pathological process which produces the other epidermal changes which have been described.

If future investigations shall confirm the occurrence of vascular involvement in lesions showing the other changes so uniformly noted in parapsoriasis the condition will be well characterized pathologically. Leaving out of consideration the deeper vessels of the corium, parapsoriasis must be considered a condition marked by changes of degenerative and regressive character. In true psoriasis the dilatation of the capillaries may be as marked as in parapsoriasis. But in the former the dilatation is an active one—whether nervous in origin is beside the question—and it does not lead to the intense œdema with the resulting degeneration of epidermal cells and the disturbance of cornification. As compared with parapsoriasis, the process in true psoriasis must be considered progressive in nature, leading to epidermal hyperplasia. In seborrheic eczema and in lichen the pathological process is an acute inflammatory one, characterized by the presence of polymorphonuclear leukocytes. From these various conditions, with which parapsoriasis may show the greatest clinical resemblance, the latter is readily enough differentiated by means of the microscope.

The cases herein reported are important because they help to explain the production of the epidermal changes. In C. J. White's case, obliterating arteriolitis led to gangrene of a toe. Because of the vascular involvement parapsoriasis becomes of clinical importance not only to the dermatologist but also to the internist, since there is no *à priori* reason why similar vascular changes may not occur in the internal organs. The involvement of the deeper vessels of the corium may, perhaps, explain the persistence of the lesions in spite of all treatment, a condition which helps to differentiate parapsoriasis from psoriasis clinically.

DESCRIPTION OF PLATES.

PHOTOMICROGRAPHS.—Figures 1 to 10.

PLATE VIII.

Figure 1.—Earliest Lesion. X 150. Œdema of papillæ. Œdema of epidermis.

Fig. 2.—Earliest Lesion. X 575. Summit of an œdematous papilla. Separation of stroma of papilla. Lymphocytic infiltration and connective tissue proliferation.

PLATE IX.

Fig. 3.—Lesion showing most marked involvement. X 150. Destruction of papillæ and of overlying epidermis. Changes in the vessels and nerves of the corium.

Fig. 4.—Same Lesion as Fig. 3. X 350. Base of ulcerated area.

Fig. 5.—Same Lesion as Fig. 3. X 350. Venule of corium. Hypertrophy and hyperplasia of endothelium.

PLATE X.

Fig. 6.—Same Lesion as Fig. 3. X 350. Venule of corium. Hypertrophy and hyperplasia of endothelium. Perivascular infiltration and proliferation.

Fig. 7.—Same Lesion as Fig. 3. X 350. Venule of corium. Endothelial and perivascular involvement leading to complete obliteration of lumen of vessel.

Fig. 8.—Same Lesion as Fig. 3. X 350. Lymphatic of corium.

Fig. 9.—Same Lesion as Fig. 3. X 350. Nerve of corium. Increase in number of nuclei and in amount of internuclear tissue of sheath of Schwann. Dilatation of perineural space.

Fig. 10.—Oldest Lesion. X 100. Some papillary and epidermal œdema. Papillæ shorter and more widely separated than normal. Hypertrophy and desquamation of horny layer. Involvement of vessels of corium.

PLATE XI.

DRAWINGS.—Figs. 11A to 15B.—All the drawing were made with a Leitz camera lucida, Leitz 4 ocular and Leitz 1-12 objective, giving a uniform magnification of 1360 diameters.

Fig. 11A.—Earliest Lesion. Superficial portion of normal epidermis at margin. (a)—Stratum corneum. (b)—Stratum lucidum. (c)—Stratum granulosum. (d)—Superficial portion of stratum spinosum.

Fig. 11B.—Earliest Lesion. Superficial portion of epidermis Disappearance of stratum lucidum. (a)—Stratum corneum, showing nuclear remnants. (c)—Stratum granulosum. (d)—Stratum spinosum.

Fig. 11C.—Earliest Lesion. Epidermis over summit of an œdematous papilla. Disappearance of stratum lucidum and stratum granulosum. (a)—Stratum corneum, showing nuclei and œdema. (d)—Stratum spinosum. Intercellular œdema and dilatation of nuclear spaces.

PLATE XII.

Fig. 12.—Earliest Lesion. Deeper portion of stratum spinosum. (a)—Dilated intercellular space. (b)—Distended nuclear space with shrunken nucleus. (c)—Lymphocytes.

Fig. 13.—Earliest Lesion. Stratum mucosum and underlying stroma of papilla. (a)—œdematous stratum mucosum. (b)—A row of fluid-filled spaces just beneath the epidermis.

PLATE XIII.

Fig. 14.—Lesion Showing Most Marked Involvement. Summit of a papilla. (a)—Dilated capillary. (b)—Fluid-filled spaces just beneath epidermis. (c)—Stratum mucosum. (d)—Dilated intercellular space containing lymphocytes. (e)—Distended nuclear spaces containing lymphocytes.

Fig. 15A.—Oldest Lesion. Superficial portion of stratum corneum. Closely placed lamellæ containing compressed nuclei.

Fig. 15B.—Oldest Lesion. Deeper portion of stratum corneum. Swollen, nucleated, vacuolated lamella.

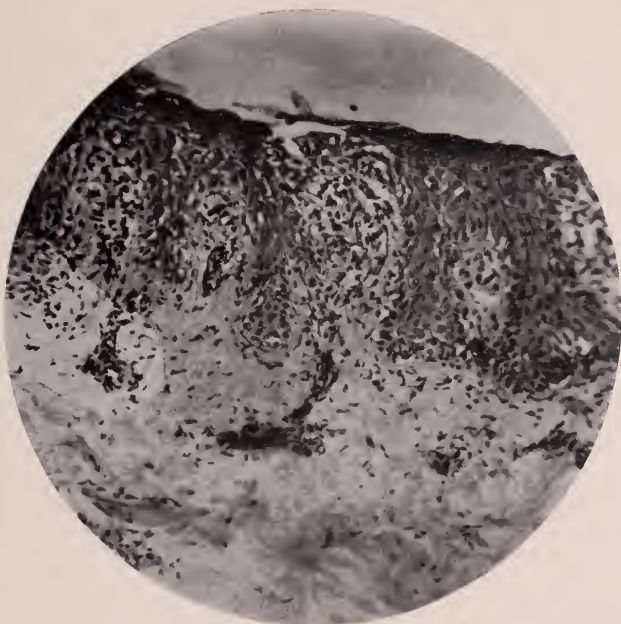


FIG. 1.

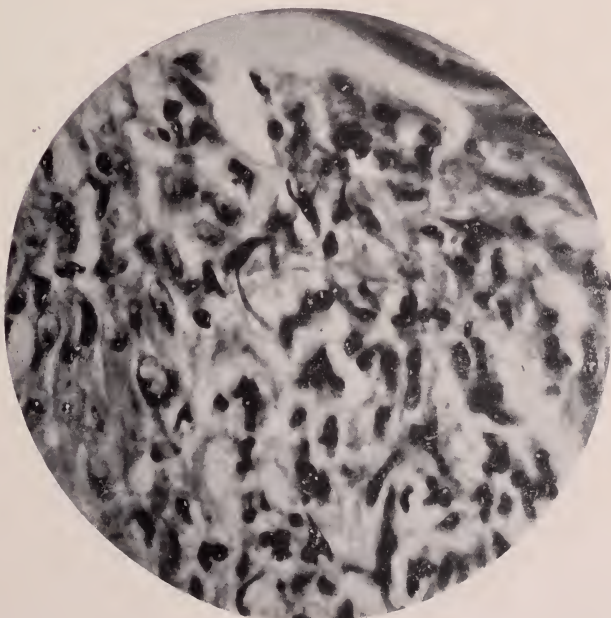


FIG. 2.

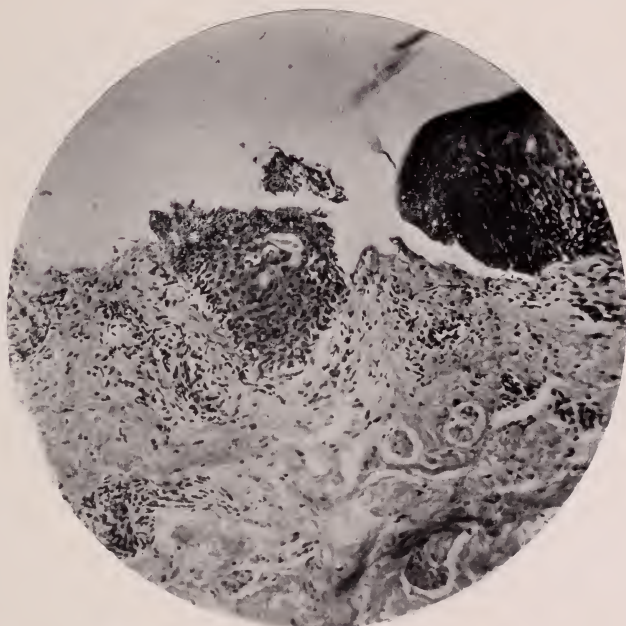


FIG. 3.

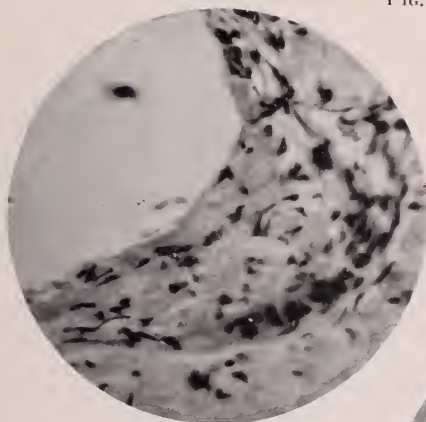


FIG. 1.

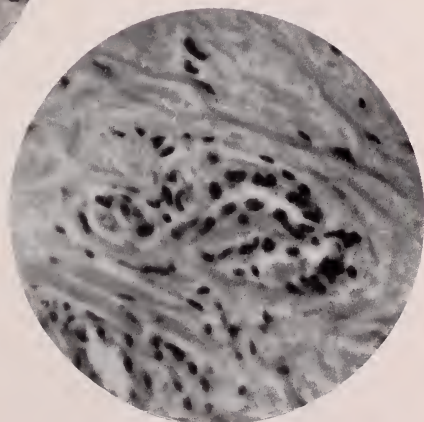


FIG. 5.

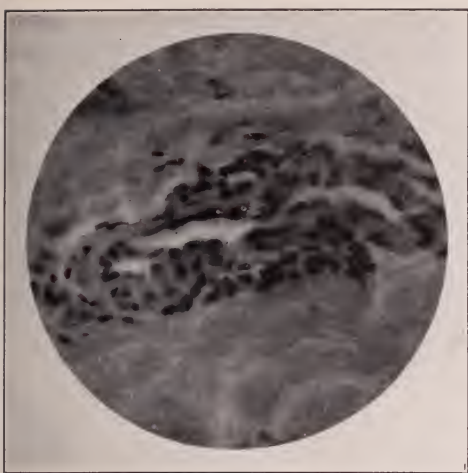


FIG. 6.

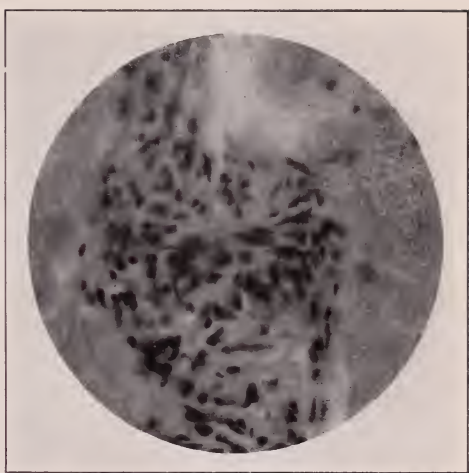


FIG. 7.



FIG. 8.



FIG. 9.



FIG. 10.

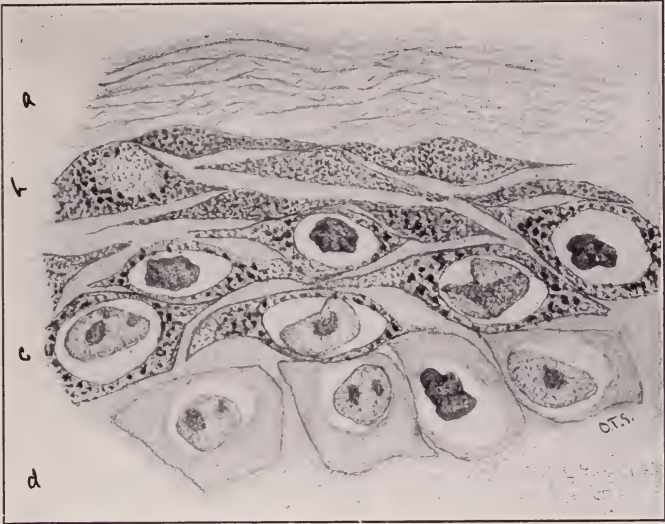


FIG. 11 a.

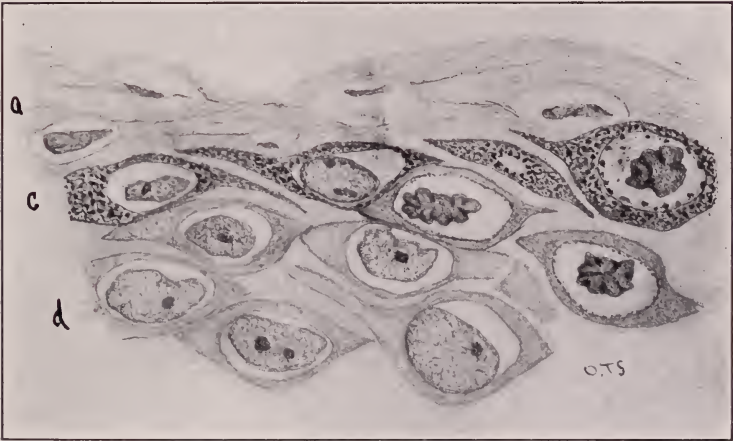


FIG. 11 b.



FIG. 11 c.

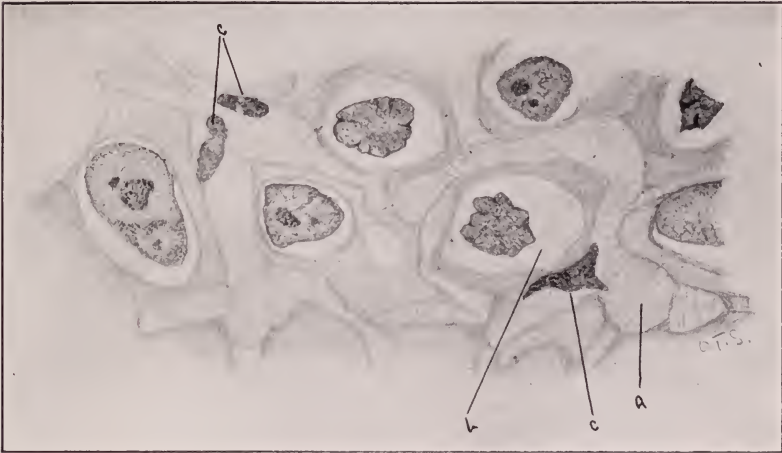


FIG. 12.



FIG. 13.

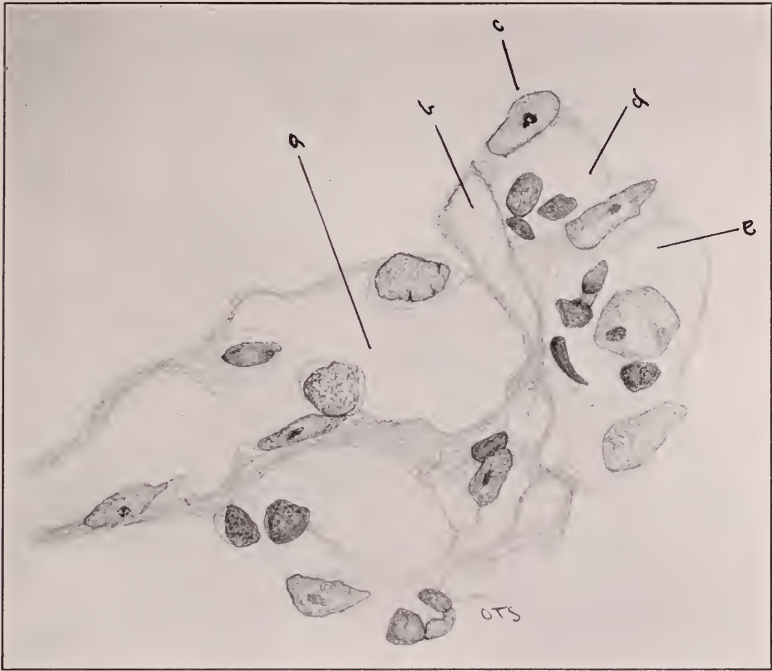


FIG. 14.



FIG. 15 a.

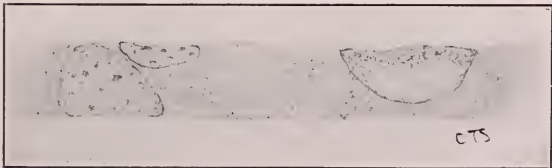


FIG. 15 b.



FIG. 16.

PLATE XIV.

Fig. 16.—Parapsoriasis. Clinical picture of cases.

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CASE REPORTS: CHRONIC PERSISTENT ŒDEMA OF THE FACE; ELEPHANTIASIS; ELEPHANTIASIS FOLLOWING DROPSY; RESULT OF EXCESSIVE X-RAY DOSAGE IN THE TREATMENT OF ACNE; MYCOSIS FUNGOIDES.*

By BURNSIDE FOSTER, M.D. Clinical Professor of Dermatology and Lecturer on the History of Medicine, University of Minnesota, St. Paul, Minn.

MRS. A. R., a German woman, 29 years of age, was referred to me by Dr. Binder, May 24th, 1907.

The patient's present complaint began about a year and a half ago. This trouble began with an inflammation of the right eye, which was very painful, red, and swollen. A day previous, patient claims to have had a chill. A week later she complained of a severe pain in the right side of head, this pain being localized to a small spot the size of a dollar, and was very painful to the touch. Next day an eruption appeared on and about this painful spot; eruption was red, but patient is unable to describe it otherwise. A similar eruption appeared along the margin of the lower right maxilla, but patient experienced no pain in this locality. A powder and internal medicine were given by the local doctor. About a week later the right side of the face became stiff, (as she says) slightly anesthetic, and seemed to be paralyzed. At this time the right side of the tongue was affected, being stiff, slightly anæsthetic, and she experienced some difficulty in talking, being unable to pronounce some words and letters, as p and v. Two weeks later the face began to swell, (right side). After being treated with electrical applications patient was able to move muscles of the right side of the face and was able to talk better. She was treated this way for three months.

About three months later the left side began to swell slightly but there was no eruption. Left eye was also affected like the right. At this time the patient had an attack of pneumonia. The swelling of the face has gradually increased slowly up until two months ago. About 10 weeks ago upper lip began to swell,

*Read at the 32d Annual Meeting of the American Dermatological Association, Annapolis, Maryland, September 24, 1908.

and for a short time afterward the swelling of the face decreased so that it was hardly noticeable. The patient claims to have been exposed to a draught and that this resulted in her present condition of swelling. Shortly after the swelling appeared a slight rash appeared on the left side of the nose. This eruption was in the form of small blisters and itched considerably. However, this same eruption has appeared and disappeared from the beginning of her trouble. This last week the eruption has spread very much. At present she complains of a tense feeling in the cheek, and a feeling as if the parts were going to burst.

Past History: At 11 years of age had an attack of measles, a catarrh resulting. Since this time she has always had a tired feeling, and would frequently fall asleep during the day. For four years she had been suffering from frequent attacks of bronchitis. Patient has four children, who are not in the best of health. The second child was a seven months' child.

Family History: Father (59), and mother (63), living. One brother and two sisters living and well.

Physical Examination: There is a very marked œdema of the upper and lower lids of both eyes. The œdema extending some distance below the lids and especially on the left side, the left cheek being œdematous and the upper lip, especially on the left side, being much swollen. The skin over the left cheek is red and glistening, but not painful—there is no itching or burning. Temperature normal. Examination of the blood, urine and sputum showed nothing abnormal. A complete physical examination of the patient was made by Dr. C. L. Greene, but no evidence of any organic lesion was found to account for the œdema of the face. The patient was kept under observation in the hospital for 10 days, and the œdema of the cheek and lip diminished slightly, the condition about the eyes remaining about the same.

A CASE OF ELEPHANTIASIS.

M. G., a girl, 16 years of age, was seen in consultation with Dr. Arthur Sweeney, June 3, 1907. She was born in Iowa, and had never been out of the United States. Parents living and have three other children, all well. At the age of two years this patient had measles, and during convalescence became partially paralyzed on the left side. For several months she was unable to move the left arm or left leg, and although the power of motion slowly returned, there has remained ever since some

evidence of weakness on the left side, and there is slight left facial paralysis. Several months following measles it was noticed that the left leg was larger than the right and for several years the swelling gradually increased and about a year later the right leg began to show evidence of the same kind of swelling, but it has never been as large as the left. This swelling of the limbs has increased steadily as the child grew and the present condition is well shown in the accompanying photograph. (Not published.)

The child is in good general health, somewhat dull mentally, but goes to school with children of her own age, and careful physical examination fails to detect any disease of any organ, or disturbance of any function. An X-ray picture of both legs was taken and there was an apparent enlargement of the lower part of the left femur and the upper part of the left tibia. No enlargement of the bones on the left side.

There is marked œdema as shown by pitting on pressure of the skin over the left thigh, none on the right.

This case might be included among those cases described as non-parasitic elephantiasis, although there was no history or evidence of any erysipelatous inflammation of the skin usually occurring with this disease.

Elephantiasis resulting from inflammatory conditions, such as repeated attacks of erysipelas, long-standing eczemas, chronic varicose ulcers, syphilitic ulcers, and other infectious inflammations of the skin is not particularly uncommon. In this case there were present none of these conditions, and the cause of the lymphatic obstruction could not be determined. Various writers have spoken of such cases as being due to congenital obstruction of the lymph channels.

A CASE OF ELEPHANTIASIS FOLLOWING DROPSY.

O. M., farmer, age 69, born in Sweden. Came to this country 38 years ago and has since resided here. Seen with Dr. Lundholm June 17, 1908. Family history negative. The patient has had two attacks of rheumatism, probably rheumatic fever, a good many years ago. For the last five or six years he has, according to his physician, Dr. Chas. Germon, of Balaton, Minn., had symptoms of chronic nephritis with secondary cardiac hypertrophy, and general dropsy with much œdema of the lower extremities. There was evidence of much fluid in the abdomen and a large hydrocele, which had been tapped several times. The legs have been swollen constantly for

the last four years and it is the condition of the skin of the legs and feet to which I wish to call attention at this time. The accompanying photographs show the condition so well that verbal description is hardly necessary. There is an immense hypertrophy of the skin and subcutaneous tissue and there are numerous large, warty growths (hypertrophied papillæ) on both legs. It seemed to me an interesting example of Elephantiasis following ordinary dropsy of constitutional origin.

RESULT OF EXCESSIVE X-RAY DOSAGE IN THE TREATMENT OF ACNE.

The patient, whose photograph is here shown, demonstrates very well the harm that may result from excessive X-ray treatment of the face.

C. A., 21 years of age, consulted me May 29th, 1908, for the condition shown in the photograph. She has had a generalized acne of the face since the age of 14. Four years before I first saw her she had been treated with the X-ray for a period of four months; the exact number of exposures I could not ascertain, but she said that she had been treated at first daily for several weeks and later three times a week. The treatment was with a static machine and the exposures were of 15 minutes duration. She said that her face became quite sore during the treatment, but from her account I could not make out that there had been any deep-seated burn. The condition of the skin of both cheeks and of the forehead is well shown in the photograph; it is atrophied, shrivelled in appearance and is the seat of a large number of telangiectases. The end result in this case is infinitely worse than the result of any other treatment, or of no treatment, could have been, and I present it as a warning against the indiscriminate and reckless use of the X-ray on the face.

A CASE OF MYCOSIS FUNGOIDES.

Mrs. McC., age 47, referred to me by Dr. Awty, of Fargo. The patient has four children, all well, and eight brothers and sisters, all well; mother living and well; father died of kidney disease. No history of any previous illness which could have any bearing on present condition. The first appearance of any skin disease was two years ago, June, 1906, when there appeared quite suddenly an irritable eruption, consisting of a number of various sized red, inflammatory lesions on the forehead,

which spread to the face. Some of these lesions were elevated and contained at first a little water, and were quite red. Later they became purplish in color and crusted and discharged a little pus. They were extremely irritable and itched and burned a great deal. The eruption at first lasted only a few days, but a week or two later a similar eruption appeared and during that year there were two more attacks, each more severe than the former ones. About a year after the first attack, the skin having been in perfect condition for several months, there appeared several elevated spots on the forehead, face and arms, which would coalesce into quite large lesions and which gradually assumed a purple color and discharged a little pus. The eruption itched and burned severely. In April, 1908, the patient again noticed the same eruption on the arms and face, but it only lasted a few days. Early in July of this year the present attack began, this time on the right foot, which presented numerous inflammatory spots, which soon crusted and increased in size, forming spongy-like growths. Within a few days similar lesions appeared on the face and hands. The face became entirely covered with cauliflower growths so that the features were almost obliterated, and there was practically no normal skin to be seen. I saw her first August 19th. The eruption, or more properly, the new growths, were confined to the face, hands, arms and feet, the body being free from them. From between the many cauliflower-like projections on the surface of the tumors, considerable pus exuded, and there was a most offensive odor, which filled the entire room. There were no constitutional symptoms, save a slight rise in temperature for a few days, and all of the bodily functions were normally performed. Examination of the blood and urine showed nothing abnormal. Microscopical and cultural study of the pus and secretions from the skin showed nothing but the ordinary micro-organisms of suppuration. Histological study of sections from the skin lesions showed an abundant round-celled infiltration with a connective tissue stroma and some necrotic areas.

There are many cells and fragments of cells of various sizes and shapes, suggesting, as Hyde, quoting Unna, says: "the result of two antagonistic processes constantly going on, that is, cell multiplication and cell destruction." The general histological picture was that of granulomatous tissue. The chief interest in the case up to the present time, is in the result of treatment. She was given X-ray exposures every second day, using a soft tube about six inches from the lesions; ten minutes exposure from a 12 inch coil. After



FIG. 1.



FIG. 2.



FIG. 3.



FIG. 4.



FIG. 5.

the fourth exposure, eight days from the beginning of the treatment, improvement was manifested. The abundant secretion ceased and the lesions became dry and friable and the tumors diminished very much in size. Fig. 5 shows the appearance on September 2d, two weeks after the first photograph was taken and the improvement can be plainly seen. At the present time, September 23d, there is still more improvement. The further progress of the case will be reported. The patient has been given arsenic, Fowler's solution, 30 drops daily, but I attribute the improvement entirely to the X-ray.

Locally a 1-1000 solution of permanganate of potash has been applied to the affected skin by spray, and compress, and the patient has been made to spend as many hours as possible out of doors exposed to the direct rays of the sun.

THE CONJUNCTIVAL TUBERCULIN REACTION IN CERTAIN DISEASES OF THE SKIN.

By JEROME KINGSBURY, M. D., New York.

WOLFF-EISNER and Calmette, working independently, were the first to describe an inflammatory reaction of the conjunctiva following the instillation of a tuberculin solution into the conjunctival sac of tuberculous patients. Since the publication of their original papers a wealth of literature has accumulated in regard to the experiences of various investigators with this interesting test, and as the profession is now familiar with its technique, dangers, and contraindications, any description or remarks here on these subjects would be quite superfluous. As definite conclusions, however, regarding the practical value of the reaction can only be drawn from extensive data, obtained under varying conditions, I feel that it may now be worth while to add my mite to the recorded observations of other writers.

When this study was first undertaken, it was intended to embrace only cases of the various forms of tuberculosis of the skin, together with the so-called tuberculides. The cases of psoriasis were originally employed merely for purposes of control. This disease was selected because it has been long supposed that the tissues of psoriatics were peculiarly antagonistic to the tubercle bacillus. Owing to the reaction, however, that was produced in several of the patients, it was determined to use the test in all available cases to determine, if possible, if there was any justification for the above hypothesis. Although there was considerable clinical material at my disposal, I was singularly unfortunate in securing patients with this comparatively common affection. There was a sufficient number, however, for me to demonstrate the fact that patients with psoriasis are by no means immune to tuberculosis. Out of eleven cases a reaction was obtained in four. Two of these patients had incipient phthisis, and one a joint disease that was probably tuberculous. The physical examination of the remaining case was inconclusive. The cases of leprosy were tested merely as a matter of interest, because marked reactions have been reported as occurring in non-tuberculous lepers after the injection of tuberculin. The result of the test in but two cases is of little significance.

The cases are from the service of Dr. L. Duncan Bulkley at the Skin and Cancer Hospital and from the writer's service at the Presbyterian Hospital Dispensary. The tuberculin was furnished to the Presbyterian Hospital by the Rockefeller Institute, and practically all of the instillations were made for me by Dr. Henry H. Pelton, Chief of the Medical Clinic at the Presbyterian Hospital Dispensary. I am also indebted to Dr. Pelton for the physical examinations, and I here desire to express my thanks to him for his very valuable assistance.

In some of the patients reported in the paper a 1 per cent. solution of tuberculin was used, but in the majority a solution of only half this strength was employed. The amount instilled in each instance was 0.025 c.c. There was no appreciable change in the cutaneous lesions of any of the patients in whom a positive reaction was obtained. The following scheme, suggested by Baldwin, has been adopted in recording the results obtained:

- 0 No difference in either conjunctiva;
- ? Slight difference, especially in caruncle;
- x Distinct redness of caruncle and palpebral conjunctiva;
- xx Distinct redness of palpebral and bulbar conjunctiva with lachrymation and formation of fibrin.

LUPUS VULGARIS.

Case I. G. M., male, thirty-one years of age. Born in the United States, but is of German parentage. Married, and is the father of two healthy children. No family or personal history of tuberculosis. Physical examination negative. Five years ago, small nodules appeared on the right nostril, and later the tip and left side of the nose became affected. There were also sores inside of the nose. At present there is a perforation of the cartilaginous septum, but the cutaneous eruption has been considerably improved by radiotherapy. There are still, however, several quite typical lupus nodules on the left side of the nose.

February 18, 1908, 1 per cent. tuberculin in right eye. Reaction, xx.

Case II. B. M., female, widow, thirty-three years of age. Born in Ireland. No family history of tuberculosis. Patient is well developed and has always been in fairly good general health. Physical examination negative. She has had lupus for nearly twenty years. Eruption confined to chin and right side of the neck. There is a good deal of cicatrization that is the result of various

forms of treatment, and also considerable pigmentation and telangiectasis from prolonged use of the X-ray. Some lupoid nodules on the left side of the chin still persist.

March 26, 1908, 1 per cent. tuberculin in right eye. Reaction, x.

Case III. N. M., female, fifteen years of age. Born in France, and has been in this country for only a few months. Family history is negative. Patient is anæmic and poorly developed. Physical examination: Slight dullness and diminution of the breath sounds at the apex of the right lung. No rales. There is a circinate patch of lupus on the right cheek about one and a half inches in diameter. It is said to have been present for about three months.

April 13, 1908, 1 per cent. tuberculin in right eye. Reaction, x.

Case IV. P. C., male, five years of age. This patient is the son of the man having tuberculosis verrucosa cutis. Otherwise the family history is negative. The boy is well nourished, strong, and apparently in good general health. There are no enlarged glands, and the lungs seem normal. On the right cheek there is a patch of lupus covering an area about the size of a silver dollar. This is of over two years' duration.

August 1, 1908, one-half per cent. tuberculin in left eye. Reaction, 0.

LUPUS VERRUCOSUS.

Case I. A. C., male, twenty-nine years of age. Born in Italy, and is a shoemaker by occupation. Is somewhat undersized and has a slight stoop. States that he has expectorated blood-streaked sputum on a number of occasions. Physical examination: Very slight dullness and prolonged expiration at right apex. No rales. Signs not sufficient to warrant a diagnosis of tuberculosis. The man has characteristic warty plaques on the back of both hands. There are also lesions on the forearms, buttocks, thighs and feet. He states that he has had the disease since he was two years of age.

August 1, 1908, one-half per cent. tuberculin in right eye. Reaction, 0.

Case II. H. D., twelve years of age, schoolboy. Born in United States. He is fairly strong and active, but is thin and poorly developed. Ribs are prominent, and he has winged scapulæ. Physical examination of chest was negative. Post-cervical and inguinal glands enlarged. Two characteristic lesions, each about the size of a silver halfdollar, are on the dorsal surface of the left foot. He

is said to have had one of these plaques for two years and the other for four.

November 21, 1908, one-half per cent. tuberculin in left eye. Reaction, x.

PAPULO-NECROTIC TUBERCULIDES.

Case I. M. P., female, single, twenty years of age, Ireland, stenographer. No family or personal history of tuberculous disease. General health has always been good, and she is well nourished, although rather anæmic. Physical examination of chest negative, and no enlarged glands. She has had the eruption for nearly seven years, and at present typical lesions in all stages are found on the forearms, hands, and legs.

March 2, 1908, one-half per cent. tuberculin in left eye. Reaction, xx.

Case II. L. M., female, thirty-five years of age, U. S. clerk. She is well nourished, and states that she has always had good general health. No tuberculous history. No glands palpable. The eruption has been present for the past five years, and is confined to the forearms and hands. There are only a few active lesions at present, but the forearms are covered with small cicatrices.

April 13, 1908, one-half per cent. tuberculin in right eye. Reaction, x.

Case III. H. H., female, single, twenty years of age. She is well developed and apparently in excellent general health. No family history of tuberculosis. Physical examination showed the lungs to be normal, and none of the superficial glands were enlarged. Patient has been troubled with the eruption for the past three years, and believes that she had a similar condition when quite young. Characteristic lesions are now present on the arms, forearms, and legs.

April 13, 1908, one per cent. tuberculin in right eye. Reaction, xx.

Case IV. R. G., female, single, United States, twenty-three years of age. Patient is fairly well nourished and appears in good general health. No family or personal history of tuberculosis. Physical examination of chest negative. The post-cervical glands are somewhat enlarged. (No evidence of phthiasis.) Four years ago she had lumps in the calf of each leg, and several of these lesions ulcerated. From location, history, and appearance of cicatrices, it would seem probable that she has an attack of erythema indurata at this time. Hard papular lesions have appeared on the

forearms and hands from time to time during the past year. Most of these have broken down, and at present typical lesions may be seen in all stages.

April 17, 1908, one per cent. tuberculin in right eye. Reaction, x.

LUPUS ERYTHEMATOSUS.

Case I. K. K., female, married. Born in Ireland, thirty-six years of age. Patient is a large woman, weighing nearly two hundred pounds. No evidence of any tuberculous lesion. She has had patches of erythematosus lupus on the face and scalp for over eight years. On the top of scalp there is an irregular-shaped atrophic area, about two inches long by one wide. There is an active circinate lesion on the right cheek that is nearly two inches in diameter, and there are similar, though considerably smaller, lesions on the bridge of the nose and on the forehead.

February 28, 1908, one per cent. tuberculin in right eye. Reaction, 0. April 20, 1908, one per cent. tuberculin in left eye. Reaction, 0.

Case II. J. S., male, widowed. Sixty-four years of age. Born in Germany. Employed as a janitor's helper. No family or personal history of tuberculosis. There are no signs of pulmonary tuberculosis and there is no glandular enlargement. There are characteristic lesions of erythematosus lupus on both of the ears, but patient does not seem to know how long condition has been present.

July 14, one-half per cent. tuberculin in the left eye. Reaction, 0.

Case III. J. R., female, married, forty-four years of age. Born in Scotland, but has lived in this country for many years. No tuberculous family or personal history. She is rather stout, and states that she has always enjoyed good health. Physical examination negative. The eruption developed about two years ago. A small scaly patch first appeared in front of the right ear, and this gradually increased in size until it covered an area about the size of a silver dollar. There are two small circinate lesions about half an inch in diameter on the forehead. These have been present for several months.

July 21, 1908, one-half of one per cent. of tuberculin in right eye. Reaction, 0.

Case IV. M. C., female, married, twenty-one years of age. Born in Italy. She is apparently in good general health, and personal history is negative. Physical examination showed slight dull-

ness at the apices, but there were no definite signs of tuberculosis. The patient has had lesions of erythematous lupus on her face for the past two years. The disease began on the ears, and later patches appeared on the face; scalp is not affected. At present there are about half a dozen circinate lesions on cheeks and forehead that vary in size from three-quarters to one and a half inches in diameter. These are scaly and considerably elevated.

July 28, 1908, one-half of one per cent. tuberculin in right eye. Reaction, 0.

Case V. E. G., female, married, forty years of age. She is mulatto and was born in the West Indies. The woman had pneumonia seven years ago, and since then has had several slight attacks of rheumatism. Physical examination negative. Urinalysis suggests beginning renal disease. The patient states that the eruption began to develop about two years ago. The ears were first affected, but after a few months lesions appeared in scalp, and these rapidly increased in size. At present the entire scalp is involved, and there are characteristic patches on the nose and both cheeks.

September 1, 1908, one-half per cent. tuberculin in right eye. Reaction, 0.

Case VI. W. S., male, single, U. S., twenty-three years of age. He is strong and well developed. No family history of tuberculosis. Physical examination negative. Patient has gonorrhœa, and has recently lost about seven pounds in weight. No cough, night sweats or other symptoms suggesting tuberculous disease. Typical patches of erythematous lupus on nose, cheeks, forehead, and ears. Duration of cutaneous lesions, ten months.

October 28, 1908, one-half per cent. tuberculin in left eye. Reaction, 0.

PSORIASIS.

Case I. E. F., female, married, U. S., forty-four years of age. Family history negative, except that grandfather is said to have had consumption. Patient is small and poorly nourished, but gives no signs of tuberculous disease. She has had several attacks of rheumatism and frequently has severe headaches. She has had psoriasis for thirty year, and during all this time has always had some cutaneous lesions. At present the eruption is quite extensive.

July 21, 1908, one-half per cent. tuberculin in right eye. Reaction, 0.

Case II. E. L., female, single, U. S., saleswoman. Patient is well nourished and apparently in good general health. No fam-

ily or personal history of tuberculosis. Physical examination: Slight dullness at apex of right lung, breathing somewhat prolonged. First lesions of psoriasis appeared fourteen years ago. She has never had any severe or troublesome attacks, but lesions have been present most of this time. Very characteristic patches are now found on the elbows and in the scalp.

July 21, 1908, one-half of one per cent. tuberculin in right eye. Reaction, x.

Case III. G. A., female, single, U. S. Patient is a strong, well-nourished brunette, twenty-three years of age. She is employed as a saleswoman in one of the large department stores. No family history of tuberculosis, and physical examination of patient was negative. She has had psoriasis about six years, and at present has typical lesions on arms and legs.

July 24, 1908, one-half per cent. tuberculin in left eye. Reaction, 0.

Case IV. M. R., single, female, twenty-seven years of age. She was born in Ireland, but has lived in this country ten years, during which time she has been employed in domestic service. Family history is negative. Patient is thin and anæmic, but gives no signs of tuberculosis. She has had psoriasis about thirteen years, and is seldom free of lesions.

July 25, 1908, one-half per cent. tuberculin in right eye. Reaction, 0.

Case V. R. H., female, single, twenty-two years of age. Operator. Born in Russia. Personal history and physical examination is negative. She has had psoriasis about three years, and has had several very severe attacks.

July 30, 1908, one-half per cent. tuberculin in right eye. Reaction, 0.

Case VI. M. G., female, single, twenty-two years. Born in Austria. No family history or personal history of tuberculosis. Physical examination negative. She is apparently in excellent general health. First lesions of psoriasis appeared about eight years ago. At present the eruption is confined to the scalp and arms.

August 15, 1908, one-half per cent. tuberculin in right eye. Reaction, 0.

Case VII. J. O., female, widow, fifty years of age. Born in Ireland. No family history of tuberculosis. Patient is quite stout and give a rheumatic history. Physical examination negative. She has had psoriasis for twenty years, but eruption has never been extensive.

August 24, 1908, one-half per cent. tuberculin in left eye. Reaction, 0.

Case VIII. E. V., male, U. S., nineteen years of age. No family history of tuberculosis. Patient is fairly well nourished and has no enlarged glands. He has a chronic cough, however, and sputum is muco-purulent. No loss of weight and no night sweats. Physical examination shows slight dullness at right apex in front, and there are fine rales at the end of inspiration.

October 1, 1908, one-half per cent. tuberculin in right eye. Reaction, ?.

Case IX. V. P., schoolgirl, thirteen years of age. Family history as to tuberculous is negative. Father has chronic eczema and an elder sister has psoriasis. Patient is now having her second attack of psoriasis and has a very extensive eruption (guttate lesions). First attack occurred one year ago.

October 2, 1908, one-half per cent. tuberculin in right eye. Reaction, 0.

Case X. C. F., male, single, Italy. No family or personal history of tuberculosis. Physical examination of chest is negative. Patient has an ankylosis of left knee that is probably tubercular. He has had psoriasis about seven years. Lesions have been present most of this time, but he has had no severe attacks.

October 5, 1908, one-half per cent. tuberculin in right eye. Reaction, ?.

Case XI. J. S., male, U. S., thirty years of age. No family history of tuberculosis. Patient has never been very strong, and had pneumonia when he was twelve years of age. Has been troubled with a chronic cough for several years. No loss of flesh, night sweats, or hæmoptysis. Sputum is scanty and muco-purulent. The man is poorly nourished and anæmic; chest flattened with depression above and below both clavicles; moderate dullness over right apex, front and back; breath sounds are faint; no rales heard, but physical signs are sufficient to make a tentative diagnosis of incipient phthisis. Patient now has characteristic lesions of psoriasis on the arms, legs, and abdomen. He has had the disease for nearly eight years.

October 15, 1908, one-half per cent. tuberculin in right eye. Reaction, x (mild).

LEPROSY.

Case I. E. G., male, single, twenty-six years of age. He was

born in Russia, and has been a sailor for the past ten years. Family and early personal history is negative. Six years ago he suffered from an attack of pleurisy, with effusion, but otherwise his general health has always been good. Physical examination of chest negative. General though moderate adenopathy. First symptoms of leprosy were noticed about two and a half years ago. At present there are many small tumors on the extremities, the ulnar nerves are thickened, and there is loss of sensation in the forearms and legs.

April 17, 1908, one per cent. tuberculin in right eye. Reaction, 0. April 22, 1908, one per cent. tuberculin in left eye. Reaction, 0.

Case II. A. S., female, married, fifty-three years of age. Born in Poland, but has lived in this country for the past twelve years. Family and early personal history is negative. Physical examination shows the lungs to be normal. No enlarged glands. According to patient's statements, there were no symptoms of leprosy until about two years ago. The disease is said to have made rapid advance during the past five months, and at present the woman has all symptoms of a well-marked case of the mixed type.

November 24, 1908, one-half per cent. tuberculin in left eye. Reaction, 0.

The following conclusions seem warranted, notwithstanding the fact that they are deduced from the observation of only a small number of cases.

1. The conjunctival tuberculin test is one that will undoubtedly prove a very material help in the diagnosis of doubtful cases of lupus vulgaris and of tuberculides of the papulo-necrotic type.

2. The negative results that were obtained with the test in all the cases of lupus erythematosus is strong evidence in support of the non-tuberculous nature of this disease.

A MILD CASE OF SCLEREMA NEONATORUM

By LOTTA WRIGHT MYERS, M. D.,

Dermatologist to the New York Infirmary for Women and Children.

THE number of cases of this rare and fatal disease, which have been reported in this country, are so few and they have been of such varied types, from the half-frozen cadaverous cases which died in the first week of life to the mild cases which lasted a few weeks or months and recovered, that this one seems worthy of being reported. All the conditions of the severe type were present except the subnormal temperature and the cold skin, therefore I have classed it as a mild case. However, evidences of impaired circulation and lowered vitality were not wanting.

The patient, a female, was born in the New York Infirmary for Women and Children in the service of Dr. Angenette Parry. The mother, a Polish Jew, aged twenty-six, had had but one previous pregnancy, a twin pregnancy which terminated at seven months, after a mis-step in alighting from a car. The twins lived but nine days. No history of disease in either parent could be obtained. Although this labor was short, there was much difficulty in resuscitating the child, and during the first five days of life the child was unable to nurse, vomited greenish fluid and had repeated attacks of apparently suspended respiration. After this it nursed feebly.

The unusual condition was noticed on the third day. There was hardening of the skin and subcutaneous tissues over the buttocks and thighs which gradually spread to the shoulders, back of neck, calves and cheeks, and later the entire back was involved. Over these areas the skin could not be pinched up in folds and there was no pitting on deep pressure. All the joints were held rigidly flexed and there was firm resistance to any movement of the arms, legs, or head. This constrained posture was never changed even during sleep. When handled the child cried as if the skin was sensitive and when crying the hardness increased and the circulation of the skin was interfered with. The general feeling of the body was unnatural, hard and tense. In the early days, there was a dirty, yellowish appearance to the skin. Later the color varied from an ashen hue to

a deeply mottled bluish tint. The lips were pale. The face alone appeared waxy and the eyes were held widely open, giving the child a staring expression. The skin was not cold and at no time was the temperature found subnormal. The rectal temperature was repeatedly found to be 99° to 100° —once it was found to be 103° and once 101.4° , although no reason for the rise could be found. The radial pulse was perceptible; respirations were shallow; and the movements of the thorax were feeble. The cry was occasionally loud, but generally it was more like a feeble whine, and the child seldom cried. The abdomen was slightly distended. The blood vessels over the abdomen were dilated and the umbilicus, though never showing any evidence of infection, remained in an indolent, unhealed state. The general condition gradually failed and the baby died on the twenty-fifth day. Unfortunately an autopsy could not be obtained.

I asked Dr. George Thomas Jackson to see the case with me, which he kindly did and corroborated my diagnosis.

The cases, which have been reported, have differed much in the pictures presented. Money reported one with free movement of the joints, sweating about the head, no subnormal temperature, pulse and heart not affected, which recovered.

Northrop reported one with immovable joints, face rigid, skin cold, temperature subnormal, imperceptible pulse, and shallow respiration, which lived but a few days. Holt, in discussing the above case, cited one in which the temperature was never subnormal and which so far recovered that, at the end of five months, there were hardened areas only on the shoulders. Ballantyne described one case, a premature child with hardened areas and cold skin, which had two points in common with my case which I have found mentioned by only a few others, namely: that following an easy labor there was much difficulty in establishing respiration and the dirty yellow appearance of the skin. Barlow, Robinson, Smith, McDowell, and others reported cases which recovered after varying lengths of time, and Ingersoll one which died forty-eight hours after the condition was noticed. This also had some interference with respiration. Mildner and Soltmann found pathological states of the umbilicus of an inflammatory nature, peritonitis due to changes in the peritoneum and greatly distended capillaries of the skin.

All who have seen these cases are united in the opinion that *œdema neonatorum* is the one disease which often closely resembles it and from which it must be differentiated. *Oedema neonatorum*

is less general, involves the lower extremities or the dependent portions of the body, often beginning in the feet or hands, and the skin has a natural color, keeps its elasticity, and pits on pressure. There is no stiffness of the joints and no board-like hardness of the tissues.

Sclerema neonatorum selects the regions of accumulated fat. The skin is adherent to the subjacent tissues and can not be gathered up in rolls, thus giving the tissues a feeling of immobility. It is maintained by some that the subnormal temperature and the cold skin are always present, but many others believe there are undoubted cases with all other symptoms marked in which these two symptoms are not found.

Pathological findings and clinical histories have given rise to many theories regarding its cause. I find nothing in this history to suggest its cause, but the case is of interest because it was under observation from birth, and though it lacked the subnormal temperature it showed every other symptom of sclerema neonatorum.

SOCIETY TRANSACTIONS.

BOSTON DERMATOLOGICAL SOCIETY.

April Meeting, 1908.

Dr. C. J. WHITE in the Chair.

Pigmentary Syphilide. Presented by Dr. ABNER POST.

As is usual in this manifestation of syphilis, the eruption occurred in a female patient and on the neck. The lesions consisted of pigmented macules, irregularly circumscribed, about the color of café au lait. The skin of the interspaces between the pigmentations seemed lighter in hue than the normal skin, suggesting vitiligo; but this was due, probably, to effect of contrast with the darker macules rather than to deficiency in coloring matter. As further evidence of the nature of the dermatoses, there were groups of dull red papules, usually capped with a crust and in some instances ulcerative, situated on the extensor surfaces of the forearms and elbows.

In answer to a question by the Society, Dr. Post corroborated the frequent observation as to the rarity of the pigmentary syphilide in the male sex.

Lymphangioma. Presented by Dr. C. M. SMITH.

A boy, six years of age, showed a peculiar and prominent process on the skin, restricted to the flexor surface of the right upper arm, said to be of two years' duration. The affected area formed an irregular plaque, two by six inches in diameter, which was composed of aggregations of pinkish to violaceous red, glistening vesicles in size varying from a large pin's head to that of a pea. On palpation the process appeared to extend to the subcutaneous tissue and the lesions, between the fingers, felt like firm, elastic globules attached to something, as grapes to their stems. It was further observed that in addition to the new growth of lymphatic tissue involving the skin, there appeared to be a subcutaneous varicose condition of the lymphatics, or lymphangiectasis.

An interesting case of lymphangioma was recalled by Dr. C. J. WHITE: A woman in whom the growth extended from the deep abdominal lymphatics to the skin, and from whose cutaneous lesions there exuded daily sufficient lymph to saturate several large bath towels. The loss of fluid was finally controlled by cauterization of the open lesions with nitric acid. The great difficulty in eradicating lymphangiomata was commented upon. Even after thorough curettage and cauterization of the disease, recurrence was frequent.

Hereditary Syphilis. Presented by Dr. C. M. SMITH.

Josie R., twelve and a half years of age, the oldest of a family of eleven children. The second child is a girl of eleven years, who has interstitial keratitis. The third to eighth children all died soon after birth; the remaining three show no symptoms of syphilis.

The patient is undersized, fairly well nourished with a rather square-shaped head. Both corneæ show a number of small scars. There are also radiating cicatrices at the angles of the mouth. There is no noticeable defect in hearing. The upper central incisors are somewhat peg-shaped, a little concaved at the cutting edge and widely separated. The other teeth are more or less badly developed. Cicatrices are present on the back of the left hand, calves of the legs and forearms. Also, on the back of the left hand and extending onto the fingers are cicatrices and ulcerating papules, cömingled. Both tibiæ are slightly prominent anteriorly, this deformity being due to bowing of the bones rather than thickening of the periosteum as shown by radiographs.

In answer to a question relative to the diagnostic value of the teeth in this case, Dr. Post replied that he did not consider them wholly typical of syphilis, but of some diagnostic value, as evidence of defective nutrition, taken in connection with the other symptoms.

Scleroderma Presented by Dr. C. J. WHITE.

This boy is fifteen years old and was born in New Hampshire. His father and mother died of phthisis. Prior to the trouble with his skin he was always healthy. The affection began eight months ago. It appeared first on the right thigh, spread onto the abdomen, and later appeared on the left thigh and right arm; the lesions on the latter two regions having been noticed only within the last three weeks.

The patient's physical examination reveals no internal abnormality. His only defect is his skin disease.

The entire surface of the right leg and a major portion of the corresponding thigh are involved. Over the latter region the underlying muscles are so firmly constricted by the sclerous tissue that serious interference with locomotion has occurred. From the constant pressure the thigh muscles are also considerably atrophied, being bound down by an integument hide-like in consistence. The right ankle and dorsum of the foot are partly affected. Over the right external malleolus there is a shallow ulcer, probably induced by friction and abrasion on a surface of enfeebled vitality. On the abdomen, at a level with the umbilicus and just to the left of the median line, there is a band of sclerous tissue, one by four inches, of leathery consistency and of a dull, yellowish white hue. There is an area, similar in character, roughly quadrilateral in shape, one and a half by three inches in diameter, over the right hypochondrium. This lesion possesses sharply defined borders, with the appearance of having been let into the skin, like a mosaic. Similar but smaller circumscribed lesions are present on the arms and left side of the neck.

Treatment in this case has comprised strapping the lesions with salicylated soap plaster, hydrotherapy and passive motion and massage

to the legs in the Zander department of the Massachusetts General Hospital. Thyroid extract has also been tried, but without appreciable benefit.

Referring to the well-defined circumscribed areas in this case, Dr. J. C. WHITE remarked that he drew a clinical distinction between them and the lesions of morphœa. In the latter affection he had always observed the peripheral, lilac-colored margin.

Erythema Induratum. Presented by Dr. C. J. WHITE.

This young woman is twenty-four years old. Her family and past histories are good. Until her skin disease appeared she regarded herself as healthy, but has never been very strong. She is well developed, but somewhat undernourished. Physical examination reveals no lesions except those on the skin. There is no traceable history of tuberculosis.

According to the patient's statement, she began, five years ago, to notice tender nodes under the skin of both calves. The nodes were from one-half to two inches in diameter, and at times were sore and tender on pressure and while walking. At first the lesions did not perceptibly implicate the integument, but almost invariably, after a duration of three to four weeks, the overlying skin turned a deep red color, became thickened and eventually formed an ulcer which began in the centre of the lesion and, by progressive solution of tissue, gradually spread until the greater part of the node was converted into an ulcer. In character the ulcers were irregular in outline with oblique edges and an uneven granulating base. Many of the smaller lesions were covered with crusts which, on removal, exposed an ulcer. After running an indolent course, varying from one to two months, the ulcers gradually healed with the development of scars. As a rule the scars were firm, decidedly white or pinkish white, and depressed below the level of the skin. In the beginning the calves were the exclusive seat of outbreak; in time, however, the process crept onto the tibial regions, the ankles and knees, but it has never exceeded the latter limits.

This patient has been under the observation of my colleagues and myself, at the Massachusetts General Hospital for the past three years. Treatment has consisted in local cleanliness of the lesions, regulation of hygiene and hydrotherapy. Exposure to X-rays effectively healed many ulcers, but they did not prevent the continuance of the disease. Continuing the general hygienic measures, it was thought well to essay the effect of tuberculin. Therefore, under the direction of the hospital laboratory that treatment has been carried out with excellent final results. For six months she has received injections of bacillary emulsion. Gradually, under its influence, the tendency to outbreak has subsided, the older lesions have healed and now there has been no recurrence for three months. The patient also looks healthier, and she says that she feels better than ever before. The result in this case, at least, seems a tribute to the worth of tuberculin as now used.

Statistical Charts of Diphtheria and Scarlatina. From the South Department (for infectious diseases) of the Boston City Hospital. Presented by Dr. J. H. McCOLLUM.

The charts presented by Dr. McCollum were mainly to illustrate the great decrease in the mortality of diphtheria at the Boston City Hospital since the inception of the general use of antitoxin. Chart B. showed that the mortality from diphtheria for the seven years previous to 1895, a period when no antitoxin was used, was 82.49%. Chart C. contrasted the twelve years from 1895 to 1908, during which the use of antitoxin was general, showing the mortality to have been only 36.29%, an actual decrease of 46.4%.

Dr. McCollum said, in view of recorded facts, he felt that the great decrease in the mortality of diphtheria under antitoxin could not be too strongly or too frequently emphasized.

The difficulty in his experience of diagnosing many early cases of scarlatina was dwelt upon, particularly their differentiation from scarlatinaform exanthems. The eruptions produced by belladonna and quinine were particularly confusing to him at times. He was inclined to lay considerable weight on the tongue appearances in scarlatina. The enlargement of the lymphatic glands he thought of doubtful value in diagnosis; they were so frequently observed in other febrile toxæmias as well as from numerous external influences.

Dr. McCollum said that he was inclined to doubt the efficacy of antistreptococcus serum in scarlatina.

F. S. BURNS, *Secretary.*

MANHATTAN DERMATOLOGICAL SOCIETY.

68th Regular Meeting. April 3, 1908.

A. BLEIMAN, M. D., Chairman.

Heredo-syphilis with Gumma of the Arm. Dr. B. F. Ochs.

Boy, aged ten years, is the third child of six. There is no history of any syphilis in either the mother or father of the patient. When six months old patient was treated for snuffles. At the age of four, had lesions at the corners of the mouth which left scars. During the summer of 1907 was treated for interstitial keratitis, and a discharge from the ears, and at the present time has a dachryo-cystitis.

The boy is under-sized with a large head, prominent occiput, rounded forehead, thick lips, saddle nose, scars radiating from the angles of the mouth, and a conjunctivitis. Typical Hutchinsonian teeth. On both legs are superficial, slightly pigmented scars. On the inner surface of the lower third of the right arm is an irregular-shaped hard globular mass, of about hen's eggs in size, which had been incised.

The entire mass is firmly adherent to the deeper parts. Along the line of incision is a yellowish slough. The skin over the swelling is movable. The entire lesion is not painful. The case is presented as one of hereditary syphilis on account of the stigmata and the gumma, in spite of the fact of the absence of any syphilitic manifestations in the parents or in any other member of the family. *Epicris.* Upon the exhibition of mixed treatment the swelling was absorbed without any further trouble.

Lepra Tuberosa. Dr. J. KINGSBURY.

E. G., male, aged 26, born in Comland, Russia. He has been a sailor since his sixteenth year, but when a boy worked with his father, who was a fisherman. The first symptom of his disease appeared about two and one-half years ago, as chills and fever, followed by swelling of the feet. After several months small lumps appeared over the shins. These gradually increased in size and new ones appeared on the thighs, arms and forearms. There has been diminished sensation in the extremities for nearly a year. Four months ago, the man had what was clearly an acute leprous exacerbation. The left leg became red and swollen, had severe headaches, accompanied by chills and fever. He was admitted to Bellevue Hospital, and remained in the erysipelas pavilion for nearly two months. Recently he had a similar though not as severe an attack. This time the right leg was affected.

The cutaneous lesions vary in size from papules the size of a pin-head to flattened tumors three-quarters of an inch in diameter. There are not more than five of the latter size. These are soft and reddish-brown in color. There are about forty nodules the size of split pea on each of the upper extremities. The largest number of lesions are found on the extensor surface. There are about sixty similar nodules on each thigh, and probably half of this number on each leg. Several hard papules are found on the soles. On the arms and thighs are numerous yellowish papules. For the most part, they are closely aggregated, and many have coalesced. Quite a number of these papules are seen in the vaccination scar on the left arm. On the legs are a number of pigmented areas showing the site of the early nodules. The right leg is slightly swollen and the skin is shiny and blueish-red in color. The left leg is now of apparent normal size. There are no lesions on the trunk and but one on the face. This is a soft tubercle on the forehead, about three-eighths of an inch in size. The scalp hair is dry and thin, and probably half of it has fallen out. Beard is scanty and the eyebrows, particularly at the outer third, are exceedingly thin. There is no suggestion of the characteristic facies of the disease.

The nervous system is but slightly affected. There is moderate thickening of the ulnar nerve, but the peroneal and great auricular nerves are normal. Sensation is somewhat diminished in the legs and

forearm, but a few areas of complete anæsthesia are found. Certain areas on the back show decided hyperæsthesia.

A biopsy confirmed the clinical diagnosis.

Lichen Scrofulosorum and Seborrheal Eczema. Dr. L. OULMANN.

Miss S. I., 17, American. Family history of no interest. The patient was never very robust. Her present condition dates back about six years. At that time a number of small sores formed and were soon covered with crusts. This condition still persists. At times there is a discharge of pus from beneath the crusts. Last year a general eruption appeared after an injection of antitoxin. This eruption disappeared and was soon followed by a number of small "pimples," especially on the abdomen. These started as small red spots, pinhead in size, changed to pustules, then dried up and became covered with crusts, at first red, and later yellowish-brown. They heal without leaving any scar or any pigmentation. No itching nor any pain present at any time.

At present numerous lesions as above described, in different stages of development, are present on the body. In the axillæ a number of yellowish-brown crusted confluent papules are present.

The lesions in the axillæ the presenter takes to be eczema, and the lesions on the body as lichen scrofulosorum.

Tuberculosis Verrucosa Cutis. Dr. W. S. GOTTHEIL.

E. C., 26, Italian, four years in this country. Family history negative. At the age of five was operated upon for tubercular glands of the neck. The scar is still present.

Present condition dates back seven years. At that time noticed a swelling on the left foot, caused little pain; ruptured after three weeks and discharged a sanguino-purulent fluid. He consulted some physician who advised him to go to Ischia and use the mineral springs at that place. While in the hospital there he was informed that he had tuberculosis of the skin. Remained in the hospital for one month, and left not much improved. The discharge of pus was still going on. At the beginning of second year of his disease his right foot was similarly invaded. Two years later the left hand at the fifth metacarpal joint became also involved. Three years ago this lesion was thoroughly cured. A firmly adherent longitudinal scar is present at the former site of the lesion. Has been in the habit of using a 1-1000 solution of bichloride as an application.

Present condition: Right foot is swollen, congested and not tender. Has five distinct crusted areas of different sizes. One spot on the inner surface of the big toe is about one inch in diameter. A smaller one at the root of the second toe. A third commences at the base of the fourth toe, extends upward to the right, and involves the dorsum of the foot. The fourth area is on the fourth toe. The fifth begins at the margin

of the plantar arch and is spindle-shaped. The lesions are of a whitish color, and are covered with a firmly adherent thin scale. All the lesions are discharging pus. On removing the crusts, a verrucous condition is noted. This is most marked on the second and third toes. The nails are almost entirely covered, only the distal end being visible.

The left foot is somewhat tumified. On the dorsum of the foot from the base of the toes and extending upward is a well-defined verrucous mass discharging pus from its center. The entire mass is firmly adherent to the underlying parts. The borders of all the lesions is of a grayish-blue color.

There are a number of circular scars on the left forearm; these, the patient states, were lesions similar to those on the toes, but which have healed under bichloride dressings.

The case is presented for suggestions as to the best method of treatment.

Dr. Fox advocated the use of dental burrs and carbolic acid.

Dr. OULMANN—Exposure to the X-rays.

Dr. WINFIELD—The rays do good in these cases, but do not cure them.

Dr. GOTTHEIL was of the same opinion.

Dr. WEISS advised Hebra's old method of treatment.

Lichen Planus Haemorrhagicus et Pigmentosus. Dr. L. WEISS.

A. B., 54, Russian; noticed eruption about six months ago. This seems unlikely and inexplicable by the indifference of this class of people to their bodily ailments. From the appearance of the lesions they must have been present for over a year. Scattered all over the body are extremely numerous areas composed of groups of typical lichen planus papules. The spots are of a dark brown to chocolate color. Itching is the only subjective symptom.

Microscopically, there is a round cell infiltration in the corium, and around the blood vessels and newly formed connective tissue in the subdermal layer. Within the meshes of this connective tissue there are cells containing pigment. Hæmatoidin crystals could not be demonstrated.

M. B. PAROUNAGIAN, M. D., *Secretary.*

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TUBERCULIDES IN RELATION TO GENERAL TUBERCULOSIS.

By A. RAVOGLI, M. D.

TUBERCULOSES of the skin are usually considered as local diseases. In some cases, however, they assume a generalized appearance, invading large areas of the cutaneous surface. In the local manifestations of tuberculosis of the skin we usually see infiltrations, ulcerations, proliferations, destruction, while in tuberculides we recognize superficial lesions, which can heal up of themselves. To explain the mild character of these tubercular affections the authors have resorted to an attenuated type of the disease, as products of the Koch bacillus. This has not been applied to the cases of the skin alone, but also to some affections of the internal organs, which had formerly been considered of an obscure nature. As a consequence some pleurites, polyadenites, splenic hypertrophies, arthritides have been recognized as of an attenuated tubercular nature.

For the skin, lupus erythematosus, a clinically tubercular affection, as for a long time Besnier maintained, offers different clinical aspects, which have caused many authors to doubt its tubercular origin. Yet from the observations of Boeck, of Roth and our own we believe ourselves right in considering it a tubercular disease of the skin of an erythematosus type.

Hallopeau¹ on a pathogenic base divided the tuberculoses of the skin into four groups. In the first he comprehended those affections of bacillary nature, such as lupus vulgaris: in the second, some eruptions of a milder type which he considered as due to a modified or attenuated bacillus, as lupus erythematosus. In the third he placed some eruptions, non-bacillary, but only the result of toxins, produced by bacilli existing in the internal organs, such

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as lichen scrofulosorum, acne cachecticorum, erythema due to tuberculin. The last class was given up to those skin eruptions which affect tubercular individuals such as the tubercular eczema of Hutchinson, Unna and Neisser.

The studies of Hallopeau, although of great clinical importance, were, nevertheless, based on a hypothesis and had no pathological support. This important subject was taken up again by Darier² in his communication "les tuberculides cutanees." Under this head he grouped many cutaneous eruptions, which were scattered in different chapters, of an obscure origin as acne cachecticorum, acne scrofulosorum, lupus erythematosus disseminatus. (Boeck.)

The tuberculides have some peculiarities in their symptoms, which, without much difficulty, can be recognized. The eruptions consist of lesions of long standing, obstinate, appearing in successive crops. The dominant form is the papule or the intradermal nodule, this is usually indolent. Gradually it forms a pustule, which, break down and forms a crust. Under the crust is an ulcerated surface, which, after healing up, leaves a cicatricial pigmented spot. In some cases these eruptions are on persons without apparent symptoms of tuberculosis, but in most of the cases they are associated with tuberculosis of the lungs, of the lymphatic glands, of the joints or else with tuberculosis of the skin.

In the lesions of the skin the presence of the bacillus has not yet been demonstrated. The process consists of an infiltration around the follicles of small mononuclear leucocytes, which gradually die and the mass of the infiltration is converted into necrotic substance. If the Koch bacillus has not yet been seen in these lesions, we must see, as Pautrier³ says, their clinical relation to the general or local tuberculosis.

The meaning of the tuberculide is not to be restricted to papular or acne-form eruptions, but as leprides and syphilides, is to comprehend all eruptions of erythematous, papular, nodular, vesicular character, which are the products of tuberculosis.

The idea of Hallopeau and the correctness of his views, namely, that some of the tuberculides may be the result of toxins from the tubercle bacillus, added the class of the toxi-tuberculides.

Leredde⁴ limited the tuberculides to lupus erythematosus, acnitis, folliculitis and angiokeratoma (Mibelli), for the simple reason that these affections have not, so far, shown the presence of tubercle bacillus. He refers to them also as lupus erythemato-tubercular, which shows nodules at the edges, and considers it a transitional

form between lupus erythematosus (Cazenave) and lupus vulgaris (Willan).

The symmetrical disposition of the tuberculides, so much insisted upon by Boeck⁵, cannot be considered of so great an interest, when we see lupus erythematosus, erythema induratum and other typical tuberculides limited to one side. Nor can his views of the bacterial toxines acting upon the vasomotor centers be consistently maintained, because it presupposes the toxic origin of the eruption and a toxic action on the vasomotor system. But Boeck pointed out the pathological lesions of the tissues in the tuberculides, and he showed that they apparently start from the blood vessels. According to his views the tubercle bacilli, finding their way into the circulation, may stop at some ramifications of the last cutaneous vessels, and produce lesions which would be of toxic-tubercular origin.

In the opinion of Darier tuberculides stand in relation to tuberculosis, because they are found in individuals affected with tuberculosis. He rejects the idea of the toxines causing the tuberculides, but on the other hand tubercle bacillus has not been found in them.

The only points of relation of the tuberculides to tuberculosis is their co-existence and their successive appearance in patients affected with tubercular disease, or in whom tuberculosis is suspected. In lichen scrofulosorum, acnitis, lupus disseminatus, a true tubercular infiltration exist, with giant cells, epithelioid cells and plasma cells grouped in nodules, and a tendency of the mass to caseous degeneration. In lupus erythematosus and folliclis there is an infiltration composed only of small lymphocytes around the blood vessels and also some plasma cells. The pathological alterations are mostly on the blood vessels, which are usually enlarged, but later on their caliber diminishes, causing lack of nutrition of the cells and in consequence a necrosis of the focus.

We do not find any objection to the tuberculides, as a family of diseases of the skin dependent upon general tuberculosis, and indeed, we admit that all eruptions disseminated on the body and of tubercular origin are tuberculides. Vice versa all deep tubercular foci, limited, circumscribed, with a tendency to ulceration and proliferation must be considered tuberculosis.

In the tuberculides the process spreads, the tubercle bacillus is carried into many parts of the body by the circulation, as occurs in lichen scrofulosorum, in papulo-necrotic acne (acne cachecticorum) in some cases of tuberculosis verrucosa diffusa. In other cases the process is more of a toxic or toxi-bacillary origin, as in lupus ery-

thematosus diffusus, in tubercular erythema, in erythema induratum.

Indeed, the principal types of the tuberculides are erythematous and nodular, both characterized by infiltration, which ends in a sclerotic, cicatricial atrophic patch. These dermatoses are found in individuals affected with tuberculosis of the lungs, of the glands, of the joints or of the bones. In some cases internal tubercular affections are not manifest, but following them in life tubercular symptoms will develop. In some cases hereditary tubercular antecedents in the family are apparent, and during their life-time is found a tubercular environment.

The first group of tuberculides is well represented by Fig. I, follicular tuberculide, which is only a variety of lichen scrofulosorum and of acne cachecticorum. The patient, a colored man, 31 years old, rather well built, whose father is still living, but whose mother died with consumption, has enjoyed good health with the exception of an obstinate eruption of the face. He was admitted to the City Hospital and on account of the eruption was assigned under our service. When the patient was received, he was rather weak, feverish and annoyed by an obstinate dry cough with scanty expectoration. No syphilitic history nor syphilitic stigmata could be found. He had suffered hæmorrhages from the lungs.

At the inspection he showed superclavicular triangles abnormally deep as were also the subclavicular regions. Percussion revealed an area of marked dullness in both suprascapular triangles. The auscultation found dry sub-crepitant rales in the left suprascapular triangle. The expectoration was examined for bacilli with positive result.

Eruption—an acne eruption had constantly been found on his face and chest for several years, which is well shown by the skin, pitted with innumerable cicatrices. "Last year" *i. e.* 1907, a papulo-pustular eruption invaded the neck, the back, the shoulders, the lumbar region, the chest, a few pustules were scattered on the abdomen, and the arms were entirely covered by the eruption.

The eruptions consisted of nodules having in the center a hair follicle, red-brownish in color, of the size of a split pea, many coalescing together formed large patches, hard and resistant. The nodules, after remaining for sometime, began to undergo a necrotic process as is clearly shown in the illustration. They were covered with hard, thick, dry, whitish crusts, very strongly adherent, which on falling off left a superficial scar surrounded by a deep red-brownish pigmentation.

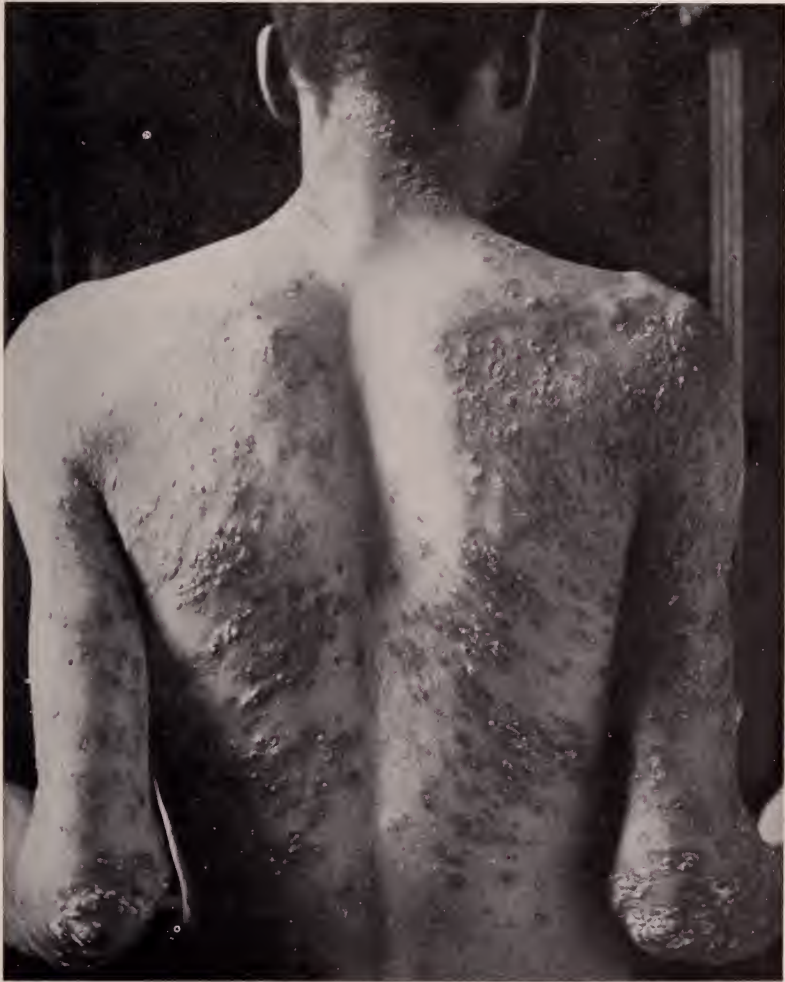


FIG. 1.



FIG. 2.



FIG. 3.

The patient was treated with cod-liver oil internally and externally, the improvement was remarkable, and after six weeks he asked for his discharge. A piece of the affected skin was taken for biopsy, in order to establish the exact nature of the lesions. The specimen, after hardening, was mounted in celloidin, and then cut in sections and stained in hæmatoxylin by my assistant, Dr. George H. Werk.

The microphotograph shows that the process involves the hair follicle and the tissues surrounding it, so much so that that the affection is a follicular and perifollicular one. The infundibulum of the follicle and the connective tissues are a mass of infiltration of small leucocytes, and amongst them the giant cells are conspicuous. The mass of fat of the sebaceous glands is greatly increased, showing a compression and retention. The blood vessels are congested, and the infiltration is prominent around them, which would show that the process is greatly connected with the condition of the tunics of the vessels. It may be that the tubercle bacillus itself or the toxins are carried in circulation through the vascular ramifications to the follicles of the hair and to the glands, where they produce the inflammatory process with their irritating presence. In a short time there is the whole syndrome which is seen in the tubercular nodules, the lack of nutrition of the infiltrating cells, their decay, their degeneration, followed by re-absorption, or by necrosis, resulting in a scar or superficial atrophic cicatrix. The scars of the tuberculides are so characteristic, that Hallopeau and Besnier claim to be able to establish a diagnosis of tuberculides from the remaining scars. The abundant pigmentation which remains around the scars for a long time is witness of an effusion of coloring matter of the blood in the tissues of the derma. For these reasons we would be inclined to support the idea that the origin of typical tuberculides of all kinds is from the blood vessels, and consequently of hæmatogenic nature.

II. In our hospital service there was also referred to us a colored boy, six years old, who was covered with lichen scrofulosorum. The boy was admitted in the orthopædic department on account of tubercular arthritis of the left elbow. The eruption consisted of small papules, yellow-brownish in color, which were covered with greasy crusts. In some places the papules were coalescing in patches, in others they were scattered. The eruption covered the whole trunk and a portion of the upper extremities. An injection with one-hundredth of a milligram of tuberculin, brought a marked reaction.

The treatment was cod-liver oil internally and externally with satisfactory results. In both cases the eruptions were typical tuberculides of a nodular type, which were in strict relation with the general tubercular condition of the patient.

Lupus erythematosus can be considered as the erythematous group of tuberculides. In the question of lupus erythematosus we believe it necessary to draw a line between the circumscribed or discoid, and the diffused form.

Lupus erythematosus discoideus which frequently occurs, slowly invades the face, remains for years and as a result, leaves atrophic cicatricial patches, must be considered more as a form of superficial, local cutaneous tuberculosis. The second variety, lupus erythematosus diffusus, must be regarded as a true tuberculide of the erythematous kind, and is connected with general tuberculosis. Indeed, lupus erythematosus diffusus has a quick and stormy process, its point of origin is the blood vessels, as shown by the hæmorrhages. In our experience all cases of lupus erythematosus diffusus had a fatal ending, some by tuberculosis of the lungs, some by tuberculosis miliaris acuta, one by tuberculosis of the intestines and of the peritoneum. By drawing this line of demarcation we shall have explained the statement of Campana, that lupus erythematosus does not always react to the tuberculin test. In tuberculosis verrucosa cutis extending nearly to the whole left leg in a strong, healthy man without general tubercular symptoms, the opthalgo-tuberculin test was repeatedly applied, always with negative results.

It seems that the tissues of the skin through the thick structure of the derma, protect the organism from the progress of the tubercle bacillus, which is maintained encapsuled in the thick plasmom which is formed around the tubercular foci.

The distinction of tuberculides as typical and atypical as advocated by Pautrier, Schidachi and others is a very useful one. It is not necessary to group with the tuberculides which are the eruptions from general tuberculosis, certain eruptions which are found in individuals, who may have a predisposition to tuberculosis. Acnitis, folliclis, angiokeratoma, are related to tuberculosis only on account of being found in individuals predisposed to tuberculosis, but they are not a general tubercular expression.

The typical tuberculides form a natural group represented by erythematous diffused patches of brown-violaceous color or by papular eruptions of different degree. The case of follicular tuberculide, which we have reported is an illustration of the papulo-neerotic

group and it can be placed between lichen scrofulosorum and acne cachecticorum. A study of these forms of eruption clearly shows, that from tuberculide to tuberculide, and from tuberculide to tuberculosis there are transitional forms, which mark the different shades.

It happens that tuberculides of a different type are found together in the same patient, as Jadassohn⁶ demonstrated, in the case where lupus vulgaris of the face was present with lupus pernio of the fingers and toes, and in another, when together with acne exanthem, and folliculitis, there was an extensive lupus erythematosus. This proves much more conclusively that the tuberculides are originated by general tuberculosis. Between tuberculosis of the skin and tuberculides there is a great difference, as cutaneous tuberculosis is local and only with difficulty can the tubercle bacillus extend its infectious action to the general system, while the tuberculides are the result of a general tubercular infection.

The presence of tuberculides does not increase the severity of the general tubercular infection, but shows that the infection is of a severe nature. We find that the cases referred to by Carl Cohn⁷ and Marie Opificius⁷ under the name of lupus follicularis disseminatus, and those of erythema induratum reported and so well studied by Tomimatsu Schidachi⁸ confirm our views in reference to the relation of the typical tuberculides to general tuberculosis.

In some cases tuberculides, especially of the type of erythema induratum, may produce ulcerations, as was observed by Hutchinson, Sommerville, Hirsh, Schidachi, and ourselves in two cases. The ulcerations have all the characters of the tubercular ulcers, brownish-red, honey-combed appearance, no tendency to heal up. These, however, are not to be grouped with miliary tubercular ulcers (Kaposi), which are found around the anus or the mouth of patients in an advanced stage of tuberculosis. They belong to the true tuberculosis and are the result of the direct inoculation of the tubercle bacilli which are present in the excretive substances passing through the orifices.

Tuberculides do not spare the mucous membranes, Hirsh, Schidachi and Bodin have described superficial ulcerations of the mouth accompanying other tubercular affections.

In two cases of lupus erythematosus diffusus we have seen in one the palate covered with bluish erythematous spots, and in the other the same spots of different size, extended to the mucous membrane of the cheeks and of the tongue. Both were women and died with general tuberculosis in a short time.

As a conclusion from the considerations of the tuberculides we find that typical tuberculides have to be separated from atypical tuberculides. Typical tuberculides are of the erythematous and papulo-necrotic type, generalized affecting large surfaces of the body. They are the expression of general tuberculosis, but they bear no influence on the general disease.

¹ Hallopeau H. Rapports de la tuberculose avec les maladies de la peau, autres que le lupus. J. D. C., London, 1896.

² Darier J. Les Tuberculides cutanees. J. D. C., Paris, 1900.

³ Pautrier L. Les Tuberculoses cutanees atypiques. *Tuberculides*. Paris, 1903.

⁴ Leredde, Les Tuberculides. *Samaine medicale*. Janvier, 1900.

⁵ Boeck, C. Die exantheme der Tuberculose. *Archiv. f. Dermat und Syph.*, 1898. C. XLII.

⁶ Jadassohn, Demonstrationen zur Tuberculid Frage. *Monatsh. f. Prakt. Dermat.* B. 45, p. 424.

⁷ Cohn und Opificius. Lupus follicularis disseminatus. *Arch. f. Derm. und Syph.* Bd. 90, p. 339

⁸ Tomimatsu Schidachi. Über das Erythema induratum. *Arch. f. Derm. und Syph.* Bd. 90, p. 371.

ECZEMA OF THE TOES.

By E. WOOD RUGGLES, A.M., M.D., Rochester, N. Y.

ECZEMA of the toes, judging from its infrequent or cursory mention in both text-books and articles on dermatology, is either a rare or a very unimportant affection. Duhring and several other authors do not mention it at all and the majority of those who do so merely speak of its existence in connection with eczema of the soles of the feet, whereas in reality it generally occurs independently of eczema of any other region or at all events of any contiguous area.

Pye Smith (*Diseases of the Skin*, London, 1893) also calls attention to this feature as follows: "It is rarely associated with the disease in other localities and must be treated entirely by topical remedies."

Hyde, in the volume on *Skin Diseases of the "Twentieth Century Practice of Medicine"* states: "Eczema of the feet is most common about the toes and the interdigital spaces, spreading thence over the instep." His experience in this respect is certainly very exceptional for I have had a good many cases of eczema of the feet and very few of eczema of the toes and have never yet seen a case where it extended from the toes upon any other part of the feet.

The only description of the condition which is at all complete or accurate is that given by Jamieson (*Disease of the Skin*, London, 1892): "Besides these, there is a very annoying form of eczema which occurs between the toes, more particularly the three outer. At first there is little more than itchiness, which comes on after the out-of-door boots or shoes are taken off at night, or less frequently in the morning. It does not give rise to much trouble in the day-time. Those subject to it have, in my experience, been between the ages of forty and fifty and active and cleanly. If allowed to increase, the epidermis peels off in the spaces between the toes and fissures are apt to form. It tends to recur after being removed by treatment or having, for the time, subsided spontaneously."

Read at the 32d Annual Meeting of the American Dermatological Association, Annapolis, Maryland, September 25, 1908.

Etiology

As regards its etiology there are several factors which seem to act as predisposing causes. In all of my cases the patients have been brain-workers; one clergyman, one physician, one clothing manufacturer and several students. This is rather remarkable as, at first thought, one would await its frequent occurrence among the laboring classes, whose habits regarding cleanliness are not of the best, whose socks are coarse, ill-fitting and poorly dyed, their boots or shoes stiff, improperly made and often leaky and whose vocations frequently contribute additional filth to feet which are seldom bathed.

Patent leather shoes which cause maceration of the skin by confining the perspiration, thus giving the effect of a poultice, do, however, act as a contributory cause.

Habitually cold feet, especially those which become clammy while their possessor is engaged in mental toil, are also subject to this affection. In two of my cases this has been a prominent feature.

Millions of mortals, however, present these predisposing causes yet few acquire eczema of the toes. Why is there this apparent inconsistency? The subject has interested me a great deal and I believe I have at last hit upon the proper explanation of at least most of the cases. This explanation is that the chief cause resides in the presence of a broken-down transverse arch of the foot.

Very few realize, unless their attention has been called to it, that there is a second arch of the foot, which is as essential an anatomical feature of the perfect foot as is the longitudinal or plantar arch. This is located at the distal extremities of the metatarsal bones and its integrity is maintained by the transverse metatarsal ligament which passes inferiorly across the anterior extremities of all the metatarsi.

The penalties attending its obliteration are not so severe, however, as in flat-foot and the patient is not so frequently forced by acute or chronic discomfort to consult the orthopædist or general practitioner. Therefore the importance of a perfect transverse as well as plantar arch escapes detection and the condition, even if noticed, is dismissed as of no practical moment.

A painful affection of the toes, first described by Morton and called after him Morton's Neuralgia, is caused by this condition and the pain is often so intense that the patient, wherever he is, even if upon the street, is forced to stop, remove the shoe and manipu-

late the joints, until he has restored the metatarsal bones to their normal position.

This weakness or absence of the transverse arch may be merely part of a general breaking down of all the ligamentous structures of the foot, thus being associated with flat-foot. In other cases it co-exists with a normal plantar arch. Badly shaped shoes have much to do with its causation.

Now if one exerts upward pressure upon the sole of a normal foot or if he preserves the transverse arch in a weakened foot by lateral pressure and makes the same upward pressure, he will observe that the toes are in contact along their inferior borders only. If now the lateral compression be increased, as if by a narrow shoe, the toes still are not brought into intimate contact except along their lower borders.

If the same upward pressure is brought to bear upon a broken-down transverse arch, or if the person is made to bear his weight upon the foot, the toes, especially the outer three, are very closely approximated throughout their contiguous surfaces and if lateral compression is applied in addition, as would be accomplished by a narrow shoe, they are pressed very tightly together. This is not the case in reference to the first interdigital space, since the great and the second toe are separated by an appreciable distance, an eighth of an inch or more. This fact accounts for the rare involvement of this space.

This intimate contact acts in two ways to bring about a lowered vitality in the skin thus compressed. In the first place sweating is produced which leads to maceration and subsequent shedding of the epidermis. Secondly, the branches of the musculo-cutaneous nerves are compressed and the nervous and vascular supply of the skin is interfered with.

There is one fact which seems to combat this theory, namely, that probably a sixth of all adults have a more or less weakened transverse arch, while a very small number have eczema of the toes. Yet this same contradiction attends all the etiologic factors of eczema. Five persons may pursue an occupation which requires the more or less constant exposure of the skin to various irritants and escape injury indefinitely, while the sixth may not be able to endure it a single week without acquiring eczema.

While studying with Brocq at Paris a laundress came to the dispensary with a violent eczema of the hands and forearms. She had followed this occupation for fourteen years with no bad re-

sults whatever. About three weeks previously she had suffered a severe mental shock by being suddenly told that her husband had been killed. The report proved to be false but ten days later this eczema appeared and grew steadily worse in spite of all treatment so that eventually she was forced to give up laundry work altogether.

The evident explanation is that the shock to the nervous system had brought about a permanent lowered vitality of the tissues so that the skin was no longer able to endure the irritant action of prolonged immersion in soapy water. It may be that the nervous element mentioned as existing in all my cases, rendered the skin of the toes unable to withstand the conditions produced by their weakened transverse arches.

Symptomatology.

As a rule the condition is slow in development. For months or years the patient, if observant, will notice that the contiguous surfaces of the third, fourth, and fifth toes, less often the second, very rarely the great toe, periodically peel. Slight irritation is generally present. New, sound epidermis will then form and this in its turn be desquamated. Later the peeling process becomes more frequent and profuse and a considerable area of macerated skin, bleached and sodden, will be shed at one time, leaving a tender, violaceous dermis exposed.

At this time a moderate itching, not severe enough to be very troublesome, begins, transient at first, occurring chiefly on donning and doffing the foot-wear. Later this pruritus tends to become more or less constant but very rarely does it approach in intensity that of eczema of other areas.

Fissures, often quite painful, form, especially in the furrow between the fourth and fifth toes and may extend to the lower surface. If the individual is not cleanly the natural odor of the feet is increased.

Then, without apparent cause, even in midsummer when perspiration is most profuse, the eczema will clear up and the skin become apparently normal, only, however, to again start up the same process after a shorter or longer period of quiescence. Naturally this transient recovery is more apt to occur in winter when perspiration and its attendant maceration are less in evidence. Some of the cases, however, are never entirely free.

The process rarely attains anything like the severity of eczema

in other parts of the body, largely, I believe, because the toes are less irritated by scratching, they being encased in a fairly rigid covering two-thirds of the twenty-four hours and not within easy reach by the fingers, even when in bed.

A peculiar sensation which is generally described as "half itching, half smarting," noticed only on disrobing at night and on rising in the morning, is premonitory of a fresh attack and when it is felt, treatment should be instituted at once.

These cases bear a certain resemblance to four cases described by Dubreuilh as "Eczema hyperkeratosique" (*Annales de Dermatologie et Syphilis*, Dec., 1889). The following is an abstract of his paper: "The surfaces of the interdigital spaces in the affected toes, increasing in intensity from the second to the last space, are covered by a thick, cornified layer of tenacious, blueish-white epidermis, sometimes a millimeter in thickness, which is opaque, pliable and resistant. This epidermis keeps detaching itself in scales, up to a centimeter in length, which, however, are very adherent at one border, so that their attempted removal causes considerable pain. Between them, and seen through a fissure at the bottom of the interdigital fold, is a violet-red dermis covered by a thin, transparent epidermis, which promptly becomes white and opaque, even before the preceding scale has detached itself. This process reproduces itself incessantly, yet without much pain or pruritus. The scales resemble moistened parchment and seem like macerated epidermis, although hyperidrosis is not present and in one case the lesions existed in the hands as well as the feet. Some of the cases presented scaly eczema in other localities. In all these cases the condition had existed several years before first seen and proved very rebellious to treatment."

Treatment.

The first essential is cleanliness, the next measures which will avoid perspiration, such as the wearing of cotton foot-wear and of properly constructed shoes, made of non-glazed leather. These should be of the so-called orthopædic shape, abundantly wide so as not to compress the toes together and possessing a transverse arch to maintain them in their normal position.

The local treatment which has produced the best results consists in bathing the feet once or twice daily in cold water, drying them and then applying with a camel's-hair brush a ten per cent. solution of tannic acid and two per cent. of salicylic acid in alcohol. This preparation also acts very effectively as a prophylactic, when

the peculiar pruritus above referred to gives warning of a fresh attack.

For severer cases and especially for those in which enough fissuring exists to render this lotion quite painful, tar ointments, *e. g.*, ten to twenty per cent. of ung. picis liquidæ with zinc oxide and cold cream are preferable, to be followed by the lotion when the condition is sufficiently improved.

I have made notes which are complete in six of these cases:

Case 1. W. R., clergyman, fifty years of age when first seen five years ago. Heredity and general health good except that several years ago he was obliged to give up his pastorate for a year on account of an attack of neurasthenia, diagnosed as of the lithæmic variety. He has always been afflicted by extremely cold, clammy feet when engaged in mental work, *e. g.*, when writing his sermons and habitually wears very warm slippers and has a thick rug under his feet when thus occupied. As long as he can remember there has been "occasional peeling of the toes, without itching and not leading to raw flesh." The more aggravated condition began shortly before he consulted me.

At that time the epidermis of the second, third, and fourth interdigital spaces of both feet was macerated and partially peeled away, leaving a dermis which was tender, inflamed and violaceous in color, with several fissures at the interdigital furrows and at the base of each little toe on the plantar surface. These fissures were quite painful, while pruritus was only of moderate severity, occurring principally on rising and on removing the socks at night. This patient had a pronounced case of flat-foot, both the plantar and transverse arches being completely broken down.

The ointment above mentioned acted very favorably in this case, reducing his discomfort to a minimum. He wrote me recently, "I can hardly say that I am ever entirely rid of it, but there are intervals—it may be of several weeks—when it is scarcely discernible."

Case 2. A. L., Hebrew, fifty-seven years of age, manufacturer of clothing. Heredity and general health good. Has suffered from eczema of the toes for about fifteen years, but of one foot only. The symptoms and characteristics were the same as in the preceding case except that the inflammation was much more severe, sometimes making him really lame. The peculiar feature of this case was that the right foot, which was the one affected, presented a badly broken-down transverse arch, while the left foot was nor-

mal. This goes to sustain my theory that the chief causes lies in the absence of a normal arch.

Case 3. W. E., physician, forty-seven years old. Heredity good, general health fair, except that he is a neurasthenic of the lithæmic type. Has suffered from eczema and though not coincidently with that of the toes. Has winter eczema of the palms. Never had any trouble with the feet until five years ago last summer, when he spent a month on a fishing trip in Canada. During this time he wore constantly moccasins and thick, woolen, lumberman's socks. The feet were continuously bathed in perspiration and frequently water-soaked as well. Soon after his return he noticed a slight irritation between the toes, followed later by maceration and peeling of the epidermis. Later there occurred a more severe form of eczema, the exposed dermis being inflamed and violaceous and fissures appeared frequently. Since the onset, at very irregular intervals, have occurred periods, sometimes of months, during which the skin appeared absolutely normal, followed by recurrences, often in winter and without any ascertainable cause. This patient possesses splendidly developed plantar arches and a really aristocratic instep, but the transverse arches are totally lacking.

For nearly a year, since using the tannin and salicylic acid lotion he has been practically free of the disease. He is, however, careful to apply it for several days at the first premonition of a fresh attack, as evidenced by the peculiar smarting itch heretofore alluded to.

Cases 4, 5 and 6 occurred in comparatively young men, students in the Rochester Theological Seminary. The course and symptoms were similar to those in the first three cases. One of them presented marked hyperidrosis of the feet. The only other feature worthy of mention is the occurrence of three cases of this quite rare affection during two years in an institution which numbers only about ninety students.

XANTHOMA MULTIPLEX.

BY JAMES MACFARLANE WINFIELD, M. D.

Professor of Diseases of the Skin, and Alfred Potter, M. D.
Instructor in Diseases of the Skin, at the Long Island College Hos-
pital, Brooklyn, N. Y.

TR., female, aged four years; born in America of Russian Hebrew parents. Family history negative; grand-
• parents living and well; the father is thirty-eight years old and has always been healthy; the mother is thirty-seven years of age; she has had seven living children, four girls and three boys, one still-born child and two miscarriages; there are no signs of syphilis in either parent; we were unable to obtain any history of xanthoma in any of the ancestors; the children are all well-nourished, and have never been seriously ill, except the exanthemata.

The patient, the youngest child but one, was a breast-fed-baby, weighing eight pounds at birth.

When the child was two months old the mother received a severe nervous shock and was ill for several months; nevertheless, she continued to nurse the baby.

When the child was four months old the mother noticed a few brownish spots on its neck; up to this time the skin had been perfectly normal. The macules were lentil-sized and did not appear to be accompanied by subjective symptoms. The mother paid but little attention to the eruption, until the spots gradually became more numerous, spreading to the shoulders and trunk; papules, ("small hard lumps") developed upon the site of the older macules ("stains").

When the child was brought for treatment to the Dermatological Department of the Long Island College Hospital she was a well-developed, bright and healthy child, with a good personal history; digestion was good and bowels regular; the heart, lungs, spleen and liver appeared to be normal; the child had never been jaundiced, and the only other skin affection present beside the xanthoma was an occasional attack of urticaria. Repeated examinations of the urine were negative, there was neither indican, albumen or sugar present.

The eruption appeared as saffron and orange-yellow colored tubercles upon the neck, shoulders, arms, trunk and limbs. Interspersed among these there were a number of brownish macules and a few hard, glistening, bright red papules; there were no lesions on the face, head, hands or feet, and at no time had there ever been xanthoma plaques about the eyes or in the palms of the hands.

The eruption was at all times entirely free from subjective symptoms.

Close observation of the case, over a period of nearly a year, showed that the lesions appeared first as a pea-sized, brownish colored macule, about a month later a small, pinhead sized papule developed upon the site of the macule; the papule was hard, smooth, glistening and pinkish red; it gradually enlarged, became darker in color and less firm in consistency, reaching its full development in about six weeks, when it was about the size of a large pea, soft and flabby in consistency so that it could be picked up and rolled between the fingers; it was no longer glistening but dull and furrowed, the color ranged from a bright lemon yellow to orange and saffron. The lesions, though closely associated, were always discrete, and kept constantly though slowly appearing. None of them have entirely disappeared, though some of them have shrunk and become smaller in size.

MICROSCOPIC EXAMINATION.

Sections were made from papules in different stages of development and imbedded in both paraffin and celloidin.

Those stained with osmic acid were unsatisfactory on account of the deep color; those stained with hæmatoxylin, and eosin showed up distinctly and clearly.

The lesion was situated almost entirely in the lower portions of the corium, the epidermis was practically unchanged, excepting for a deposit of yellow pigment in the rete mucosum and a thinning of the rete in spots due to the upward growth of the papillary layer and to the connective tissue hyperplasia.

The sweat and sebaceous glands showed no alteration; the corium was the seat of the principal changes found, most marked in the deeper layers.

The primary change appeared to be hyperplasia of connective tissue with subsequent fatty degeneration, this change varied in degree both according to the age of the tubercle and also in the same specimen, ranging from a beginning degeneration to complete

vacuolation with free fat in the lymph and connective tissue spaces.

These fatty changes show evidences of being those of degeneration and not an infiltration.

The xanthoma cells, large cells filled with fat and containing several nuclei, were found between the connective tissue bundles.

The blood vessels were thickened and surrounded by large and small transition cells. There was practically no change in the subcutaneous tissue.

During the time the patient was under observation, various means and remedies were used to remove the tumors and inhibit their growth, but nothing seemed to be of any use except the X-ray.

A selected area was rayed a number of times, and it seemed that the tumors became smaller and more flabby, the color also appeared to fade; we were unable to continue the treatment long enough to obtain any positive conclusions, but, judging from the rather uncertain results obtained in this case, and the one reported by Whitehouse (*Jour. C. D.* Oct., 1904) it would seem that a thorough course of radio-therapy is indicated in xanthoma, especially in the multiplex variety.

The case was shown at the Sixth International Dermatological Congress. When the patient was exhibited so that only the back and a portion of the chest were exposed showing only the pigmented macules, nearly all of the observers took it to be a case of pigmented urticaria; this diagnosis was strengthened by a co-existing attack of acute urticaria. Of course when the saffron colored tumors were seen the diagnosis was at once modified by all except a prominent English dermatologist who said to one of us that he thought a careful microscopical examination of the various lesions would reveal the pathological evidences of chronic pigmented urticaria.

This view was tentatively entertained until we had an opportunity to examine the lesions microscopically, for the history of several attacks of urticaria during the course of the disease and the urticaria present when the child was shown at the Congress led us to defer a positive diagnosis.

The last attack of urticaria was reflex, from the irritation of fleas, when they were removed it disappeared and there was no return while she was under observation.

The microscopical examination of the various xanthoma lesions dispelled all doubt as to diagnosis, for there were no evidences of wheal formation nor were there any mast-cells found, in short, all of the pathological changes were those of xanthoma new growths.

There have been a few cases reported where urticaria pigmentosa and xanthoma were concomitant diseases, but a careful examination of these reports makes one rather doubtful if some of these cases were not examples of urticaria pigmentosa with tumor-like formations.

The subject of xanthoma is of great interest to dermatologists because of its etiological obscurity, and a number of papers have been written upon this subject by some of the ablest cutaneous specialists of the world; but in spite of all that has been written or said we are still in the dark regarding the etiology of the disease and doubtful as to the identity or non-identity of the different types.

It is interesting to note the different causes of xanthoma that have been advanced by various authors.

When this disease first began to receive attention it was the almost unanimous opinion that it was due to some disorder of the liver, or as a sequel of jaundice, but later, when cases were reported where no disease of the liver was present, opinions began to vary.

Some claimed that the renal function was at fault, one reports a case occurring after renal colic, another after hepatic colic; two authors assert that both xanthoma multiplex and xanthoma diabetorum are of microbic origin. Asthma, emphysema, varicella, pentosurea and bichloride dermatitis have all been reported as preceeding the xanthomatous eruption.

The majority of observers, however, agree that both the multiplex and the diabetorum types are due to some constitutional dyscrasia, that in one case may be influenced by glycosurea and in another by some entirely different factor.

It is evident, from the multiplicity of opinions as to causes, that the etiology of xanthoma is about as obscure as it was when the first case was reported.

It is not the purpose of this paper to discuss the merits of the various views regarding this etiology, nor to attempt to identify the different types, but to briefly state our conclusions after a careful study of the above reported case and the literature of the subject.

Xanthoma multiplex is rapidly ceasing to be one of the rare dermatoses, for we found nearly a hundred cases on record.

A little over one-half of these cases were in adults, in three of the children the disease was congenital, there being xanthoma tumors present at birth. Since so few of the reported cases gave any history of the affection being present in other members of the

family, we are led to believe that where the disease was found in two or more members of the family, it was a mere coincidence rather than a proof of heredity.

Jaundice was found in about one-twentieth of the cases under puberty while it, or some hepatic disease, was present in over one-half of the adult cases; the evidence of some hepatic trouble in fifty per cent. of the adults strengthens the belief in the hepatic origin of xanthoma, but it does not, by any means, prove it.

Only one child had xanthoma tumors about the eyes; three had involvement of the face, hands and feet; this finding was practically the same in the adult cases.

This, together with the reported histological differences, has led us to the conclusion that xanthoma multiplex is not identical with xanthoma palpebrarum, and that the three types are not similar except in clinical appearance: (i. e. the saffron colored) tumor.

Finally deducting from the study of our case and those of others we are inclined to agree with the claim that xanthoma multiplex is a distinct disease, a benign tumor of non-inflammatory origin.



FIG. 1.



FIG. 2.

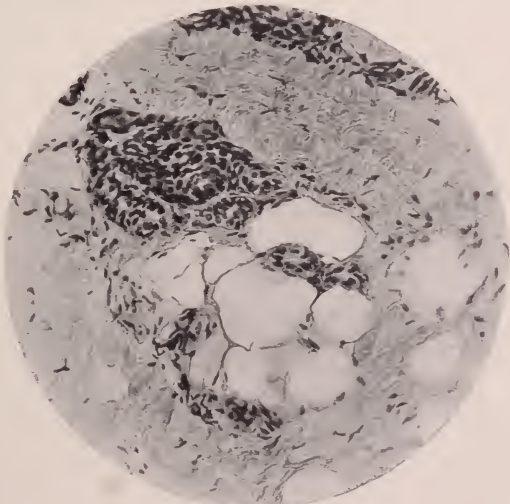


FIG. 3.

SOCIETY TRANSACTIONS.

THE NEW YORK DERMATOLOGICAL SOCIETY.

361st Regular Meeting, November 24, 1908.

Case for Diagnosis. Presented by DR. TRIMBLE.

The patient was a woman and the case had been shown before the International Congress of Dermatology in September, 1907. She was forty-eight years of age, and the skin affection had existed for twelve years. When she first came under observation the disease was practically universal. The skin was dusky, red, infiltrated, and profusely scaly. The itching was intense and had been so for several years. There was a certain amount of pigmentation of the forearms, and the soft parts of the hands and fingers were notably enlarged. Under treatment the disease has practically disappeared from the trunk, but at the present time the pigmentation of the forearms and the enlargement of the hands and fingers still exist, and there is a papular condition on the legs which seems to be follicular in character and gives to the hand the nutmeg-grater feel. A section of skin was removed and examined microscopically. The epidermis was slightly thickened and showed a hyperkeratosis, although here and there a few nuclei could be distinguished in the horny layer. There was a rather profuse subepidermic infiltration of round and plasma cells. The scaling is very slight at the present time, which is accounted for by the fact that the patient is using an oily preparation to control the pruritus.

DR. JOHNSTON considered it a case of pityriasis rubra pilaris.

DR. FORDYCE said he looked upon the case as one extremely difficult to diagnose, but one which had more of the features of a general lichenification of the skin. It suggested to him an affection due to some internal disorder.

DR. JOHNSTON remarked that the patient had been thoroughly inuncted with oil.

DR. ELLIOT said that an histological examination would be required to determine the diagnosis. It appeared to him to be a case of the so-called Darier's disease, but he could not say that positively without an examination.

DR. TRIMBLE, in closing, said that when he first saw the case he was inclined to make a diagnosis of Lichen rubra acuminatus. The patient was shown at the International Congress and no one there ventured a positive opinion. In reference to the suggestion of Darier's disease, he said that this diagnosis had not occurred to him. He was under the impression that in Darier's disease the itching was not such a marked symptom, anyway, not so intense and prominent a feature as was the case with this patient. The groins and axillæ were favorite locations for Darier's disease, and there was a peculiar secretion connected with the lesions. The disease in this patient was absolutely dry, had always been so, and showed no predilection for the axillary or inguinal regions. The microscopic section resembled lichen planus, no so-called psoropersms were noticed.

Case for Diagnosis. Presented by DR. HOLDER

The patient was sent out from the public schools and was admitted to Randall's Island with the diagnosis of eczema of the head. Probably ringworm was suspected. Dr. Holder first saw the case after it had been in the hospital for two months, but could find no ringworm. The case was presented as a case with keratosis pilaris in a young child. There were lesions on the scalp, back of the neck, and legs. It has been treated formerly with green soap, which has kept the keratosis down. The most interesting lesion is on the back of the neck, below the scalp. In the daylight nearly every hair in this region and on the scalp has a collarette on it. Similar to that seen in some cases of ringworm. There is the same general condition of keratosis pilaris on the legs. The hairs seem to break off easily. The use of the green soap has been discontinued for the last ten days. In another month, perhaps the appearance may be changed.

DR. FORDYCE said that the case was undoubtedly one of keratosis pilaris, but it was a unique case in its situation and in its persistence from birth. It probably was related to the ichthyosis group of skin diseases.

DR. WHITEHOUSE agreed with Dr. Fordyce that it was a keratosis of unique type.

DR. HOLDER said that he would try to present the case again at the next meeting. The treatment with the green soap had formerly kept the hyperkeratosis down. This was the 10th day of development. The skin will be allowed to remain without application so that the case can be further observed.

Case for Diagnosis (Acanthosis Nigricans). Presented by DR. WHITEHOUSE.

This case was presented by Dr. Bulkley before the International Congress of Dermatology, and Dr. Whitehouse had promised to try and present it before this Society. She has ichthyosis-like areas, which have been pretty well kept down by bathing. She also has a migrating erythema in patches having a crescentic outline. Some of these are rather permanent, but most of them are evanescent, and will come up after a bath almost while looking at them, and then they will disappear. The patient is a little girl of six years, in whom these blackish areas of the skin resembling ichthyosis have existed since birth, developing around the neck, anterior axillary folds, both surfaces of the elbow and knee joints, and on exteriors of forearms and legs. The erythematous complication is only of six to eight months duration.

Several of the members agreed that it seemed to be a case of acanthosis nigricans.

Anaesthetic Leprosy. Presented by DR. WHITEHOUSE.

As the result of the treatment to which this patient has been subjected, the patches have nearly all disappeared, but the patient is suf-

fering intensely with a neuritis of the extremities, and she has been presented for therapeutic suggestions directed toward the relief of this condition. She has taken twenty-five drops of Chaulmoogra oil and ten drops of nux vomica after each meal for a long time. At first she took it with milk of magnesia, but now takes it with plain milk, which agrees better. As a result the patches have nearly all gone from the face and upper extremities, and on the lower limbs it has practically all disappeared. The trouble began ten years ago, and when first seen she had lesions all over the face, some of which showed infiltration; there were also at one time lesions in the mouth.

DR. SHERWELL inquired whether the patient had been given any anæsthetic hypnotic or narcotic. Opium might, he thought, be indicated for a little while at least, without patient's knowledge of its use to relieve the pain. It might also act as a tonic.

DR. WHITEHOUSE replied that she had had a little.

DR. ELLIOT said he did not understand why it could be called anæsthetic leprosy. When testing the patient she said there was the same amount of pain in the patches as in the skin where there was none.

DR. TRIMBLE had found a few nodules on the forearms and was inclined to think it a mixed type. He had made the test for anæsthesia with a pin, and had found a number of places where it was complete.

DR. SHERWELL said he had thought he noted some nodules on the ear, at junction of helix and lobe—but was not sure. There was evidently some abnormality there.

DR. WHITEHOUSE said that the anæsthesia of the lesions may have changed during the course of treatment. The patient was extremely nervous and it was very difficult to get correct impressions of the pin prick from her. When her mind is directed away you get very definite impressions, but not when she is taking careful notice of what is being done.

Answering a query from Dr. Holder as to whether the ulnar nerve was enlarged, Dr. Whitehouse replied that it was not excessively so.

Case for Diagnosis. Presented by DR. JACKSON.

The patient was a boy aged four years. At birth he was covered with an unusually thick layer of vernix caseosa. When that was removed by much soaking in oil, all the skin was left red, dry, and with many closely-adherent scales. That condition continued. At times the scales would heap up into thick plates. There was no history of like condition in previous members of the family, but a younger sister had a similar, though not so severe deformity of the skin. The boy's skin was red, dry, and scaly all over, even in the bends of the joints. His hands were markedly keratotic, with deep lines, and redder than the rest of the skin. Here and there at the bends of the elbows little spines projected from the skin. The eyelashes were missing and there was a tendency to ectropion. His health was said to be good, although he was inclined to take cold easily. He had been presented before another Society and several of the members had made a diagnosis of dermatitis exfoliativa. The diagnosis of pityriasis rubra pilaris had also been made.

DR. WHITEHOUSE considered it a case of ichthyosis. The redness might depend upon the treatment, but independent of treatment we sometimes see cases of ichthyosis very much reddened. Dermatitis exfoliativa is a deeper seated affection, and the general health becomes impaired when the exfoliation of the epidermis becomes complete. This child is several years old and is in very good condition and she has had this condition since birth, preceded by a severe vernix; all the signs seemed to point to a diagnosis of ichthyosis.

DR. TRIMBLE was disposed to consider it a case of dermatitis exfoliativa, although it was said to be congenital. The generalized redness of the skin and the fact that the flexures of the elbow joints and the popliteal spaces were affected in this case were the reasons for making this diagnosis. The locations mentioned were practically always free from disease in ichthyosis. This patient's skin was inflammatory over the entire surface, a most unusual thing in ichthyosis unless due to some other cause.

DR. JACKSON said he had made the diagnosis of ichthyosis when he saw the patient at the Vanderbilt Clinic. He had presented it for confirmation of his diagnosis. The other ichthyotic presented this evening, the woman, showed similar though not as pronounced changes of the skin of the face and palms.

Ichthyosis. Presented by DR. SCHWARTZ.

The patient was presented not so much on account of the interest in her own case, which was a plain one of well-marked ichthyosis, as in the history of her numerous pregnancies. There was no history of skin disease in her family on either father's or mother's side. She has seven brothers and sisters, none of whom have any skin disease. She herself has always had this condition, and apart from that her personal history is of no interest until the time of her marriage at the age of twenty. Since then she has had six pregnancies.

1st. Pregnancy. A male child born at full term. From the mother's description it was evidently born with a well-marked condition of ichthyosis congenita. It died at the age of twelve days.

2nd Pregnancy. A female, born at full term. She is the elder of the two children presented this evening, and seems to be perfectly normal, both mentally and physically. She has no sign of skin disease.

3rd Pregnancy. A male child, born at full term. He is now four and one-half years old, and is also presented this evening. When first seen, two years ago,—that is, at the age of two and one-half—he was just beginning to talk and was very backward, both mentally and physically. He was very dull and heavy looking, the face was broad, nose flattened, complexion pasty. The skin was perfectly normal. The thyroid gland was not palpable. The absence of the thyroid in a case of ichthyosis congenita as reported by Winfield, suggested the possibility that the general backward condition, mental and physical, of this patient might be due to insufficiency of the thyroid. Thyroid feeding was tried at the time, but the child was lost sight of very shortly afterward, so that no conclusions could be drawn. As seen now, he is still considerably undersized, and does not seem to have the mental development to be expected at his age.

4th Pregnancy. Male child, born at full term and showed fully developed ichthyosis congenita when seen by me after death on the second day. The skin was brownish-red, thick, and glazed—looking and feeling like a piece of old parchment. There was a deep fissuring at all the flexures, ectropion, puckering and fissuring of the mouth, deformity of the mouth and ears, etc.—in all respects corresponding to the so-called “harlequin fœtus.”

5th Pregnancy. Miscarriage at six months.

6th Pregnancy. A male child, born at full term, with fully developed ichthyosis congenita. It died on the fourth day.

Unfortunately, it was impossible to obtain permission for an autopsy in either of the cases observed.

DR. JACKSON said that it was an extremely interesting series of cases, showing the hereditary character of the disease. If it is true that no ancestor of the parents had had the disease, here we may have the beginning of a race of ichthyosis. It would be most desirable if we could keep track of this family.

Lesions of the Hands and Face. Presented by DR. WINFIELD.

The patient was a female, aged thirty-six. Was first seen by him three years ago at the Kings County Hospital. The disease she sought relief for then, was what appeared to be a rosacea, there was a vague history of syphilis. She left the hospital and after a while entered Dr. Bulkley's service at the Skin and Cancer Hospital. There the diagnosis was made of lupus erythematosus involving the hands and face. About a year ago she came to the dermatological clinic at the Long Island Hospital. The face and hands, especially the fingers of the right, were erythematous and in some places covered with minute scales. The erythema is not permanent, but comes and goes, lasting sometimes for a month and then clearing up and remaining apparently well for some time, this feature was more marked of the hands. She is highly neurotic, close questioning did not disclose any history of syphilis. The only treatment that seemed to influence the disease at all was upon one occasion the iodide of potash—and on another ergot, at the present time her condition is better than it had been for years. The face shows a number of atrophic scars like those after necrotic granuloma, and the hands bear a marked resemblance to lupus perneo. The case was shown for diagnosis as he did not feel sure of it being lupus erythematosus.

DR. WINFIELD said that when he first saw the case two or more years ago she did have some acne-like papules on the face, and there was also a general flushing and some dilated capillaries, but she was in the hospital such a short time that nothing definite was made of the case. When she came to the Long Island College Hospital Dr. Potter, his assistant, learned that her husband was in the insane asylum, and suspecting that

syphilis might be the cause of the husband's insanity, and this give a clue to the woman's disease, investigated, but could get no history of syphilis in either party. She says she had acne as a young girl. He said he had not seen the patient since August until to-night, and since that time she had moved to the suburbs and apparently the change has greatly improved her general condition.

DR. FORDYCE said that he agreed with the diagnosis of lupus erythematosus, but that it was a very unusual type.

DR. JOHNSTON said that the history of rapid appearance and disappearance ought to dispose of lupus erythematosus. The lesions are deeper and the scars are irregularly stellate. If it were desired to give it a name he thought it would properly fall in the class of papulo necrotic with lupus erythematosus. The lesions of the hands, he would characterize as lupus pernio.

Tuberculosis Verrucosa Cutis. Presented by DR. WINFIELD.

Mrs. S. Widow, aged forty-five. When she was twenty-five years old a small warty ulcerated patch appeared upon the right wrist, which gradually spread until the whole wrist was involved and extended from the hand almost to the elbow. The first warty patch was removed shortly after it appeared. This particular area healed and remained so until about six years ago. Her husband was a consumptive and she attended him until he died, which was about fifteen years ago. A piece of the growth was excised and submitted to the pathologist, who pronounced it to be tubercular. The treatment had been tonics and, locally, compound creosote plaster. X-Ray had been used for a year and a half but the case had grown rapidly worse.

A Red Scaling Eruption of the Neck, Shoulders, Arms and Trunk.

Presented by DR. J. A. FORDYCE.

The patient was a man about forty years old, who presented himself to the Clinic with the scars of an old favus of the scalp. At the same time he had an ill-defined scaling eruption over the neck, arms, and trunk. This condition had existed for some years. The scales, after having been examined several times, were found to contain branching mycelium and some spores, which suggested the connection of the skin lesions with the old favus of the scalp.

A similar case had been under observation last year at the City Hospital, where an active favus of the scalp was associated with persistent scaling lesions of the neck and arms. In this case microscopic examination was not made.

DR. WHITEHOUSE thought that if the generalized condition was due to favus it would have yielded to treatment, as such cases generally respond promptly. Probably the fungus found was an intercurrent growth.

DR. TRIMBLE said that he had seen the case on several occasions and the condition to which Dr. Fordyce referred was present until some oily preparation

was applied which removed the scales. Two examinations were made and nothing found, but on a third examination some mycelia were found.

Blastomycosis (?). Presented by DR. SHERWELL.

Eugene McC.; age fifty. When first seen, October 21st, the patient had suffered with the same general condition for nearly a year. The trouble commenced simultaneously on the middle tibial region of both legs. The patient was in a pitiable state, having this papulo-verrucose and infiltrated condition on the anterior and posterior portions of both legs. He had been neglected, and had not seen a doctor for some time. At the time seen larvæ and maggots had been generated, and the limbs were in a disgusting condition. A diagnosis of blastomycosis or tuberculosis verrucosa cutis was made. He was given a wash of bichloride to use and Iod. Potass internally. The patient was a man of immense muscular development over whole frame, and his legs were œdematous, but all the swelling was not due to simple œdema, nor to the inflammatory condition. He did not regard it, however, as elephantiasis. The man has been used to heavy work, and has been doing it up to the present time. It had been impossible to make microscopic examination, and it was thought that the members would be interested to see the case in its present state, and to give opinions as to diagnosis, which he, Dr. Sherwell, believed personally to lie between Blastomycosis and tuberculosis verrucosa cutis.

DR. WINFIELD said he had not seen the case before, but he did not think it to be one of blastomycosis, but was rather inclined to diagnose it as a vegetating dermatitis, primarily and eczematous condition due to the existing elephantiasis, and thought that rest and tight bandaging would help if not cure the disease.

DR. JOHNSTON said that it did not seem to have a blastomycotic appearance, but was more like an elephantiasis with a characteristic warty outgrowth.

DR. ELLIOT agreed with Dr. Johnston.

DR. FORDYCE said that if elephantiasis secondary to a tuberculosis verrucosa cutis could be eliminated, one would think next of dermatitis vegetans, and called attention to a case which had been under his observation for some years in which a similar condition had followed a dermatitis herpetiformis. It was his opinion that the majority of cases of dermatitis vegetans were secondary to other affections of the skin and caused by staphylococcus infection.

DR. JACKSON said that clinically he regarded it as a vegetating dermatitis. The man had varicose veins which predisposed to elephantiasis condition of the legs, and lowered the resistance of the tissues to the effect of traumatism. A slight injury set up a dermatitis and some kind of secondary infection produced these vegetations. The fact that the condition is symmetrical is against the diagnosis of blastomycosis.

DR. WHITEHOUSE said that the case reminded him of another seen by him eighteen years ago in private practice on the East Side—a woman weighing 400 pounds. She was only 22 years of age and unmarried, and was truly elephantine, and sat in a chair from one end of the year to the other. She had vegetations similar to this case, and in addition some oozing nodules further up on the thighs, which were exceeding painful. It was as foul smelling as this one.

The vegetations got well by putting her to bed and giving diuretics—digitalis, calomel, and other eliminants, as the result of which she passed enormous quantities of water. She went down nearly a hundred pounds in weight, the pain ceased, and by strapping applications of antiseptics and bandaging, the vegetations also disappeared; it was the only case like this that he had ever seen. He was inclined to eliminate the question of blastomycosis. He thought that if the patient were sent to a hospital and put to bed, and some of the water eliminated he would have a chance.

DR. SHERWELL said that the dense exudate and the peculiar character of the general condition incline him to believe that this was possibly blastomycosis. He recognized that the man's lower limbs were enlarged, but he was a man of great musculature all over his body—while his arms were large they were well proportioned. He agreed with Dr. Dade that the disease was a vegetating dermatitic inflammation, and that that was primary. The peculiar exudate, the beading, the popular character—differ from what is generally found in cases of excessive elephantiasis. If the lesions of this character had occurred on the foot and more pendent portion of lower limb and foot he might think so, but the vegetating dermatitis, whatever the original course, was the secondary and not the primary condition. The almost fixed condition of the lower limbs he has to sleep even in a reclining position, he thought had a good deal to do with the enlargement. He has improved considerably under the lotion spoken of, and fair doses of Potass. Iod.—this may, however, have acted as Dr. Whitehouse has suggested as a diuretic.

Late Hereditary Syphilis. Presented by DR. WINFIELD.

The patient was a man twenty-four years of age. When sixteen years old, he had a small ulcerated nodule on the right side of the nose near the lower border of the alæ. The ulcer enlarged until the inside of the nose and pharynx became involved, about the same time a sluggish inflammatory swelling appeared at the joints of the left index finger and there was also an ulcer about as large as a fifty cent piece on the top of the right foot. The diagnosis of tuberculosis was made and the finger was amputated. The ulcer on the foot healed, but that of the nose continued without much change. He was seen by several physicians, who treated him for lupus, the treatment consisted of curretting, cauterization and the X-ray. The nasal condition failed to respond; finally he was sent to New Mexico, but without any result. Dr. Winfield saw him in the spring of 1908, and after watching the case for two or three weeks put him on anti-syphilitic treatment, the response was rapid and satisfactory, so that now at the end of six months his skin and mucous-membrane lesions are entirely healed. There is no personal history of syphilis, but his father, who is dead, gave a history of having had this disease, and the mother had had several miscarriages.

Case of Lichen Planus. Presented by DR. WINFIELD.

This is a case of lichen planus involving the mouth and body. The inside of the mouth, the cheek, and the lips are affected. The condition has existed for six weeks and the patient's family physician had him under arsenic treatment.

DR. FORDYCE said the case was very similar to one which he had seen a few days before. In that case first lesions were on the glans penis, then the abdomen and finally the mucous membranes. The lesions on the tongue were very like those of leukoplakia, but inside the cheeks individual papules making up the patches could be defined. On account of the slight itching and primary involvement of the genital organs, a general practitioner might be excused for calling such a case syphilis.

NEW YORK ACADEMY OF MEDICINE.

Section on Dermatology.

Stated Meeting Held October 6, 1908.

DR. A. R. ROBINSON in the Chair.

Cases Previously Shown. Syphilis of the Breast. Presented by Dr. LAPOWSKI.

This case was presented on the 3rd of March, 1908 (see the *Journal of Cutaneous Diseases*, 1908, xxvi, 372), before the Section with the diagnosis "Large Gumma of the Breast." The diagnosis was questioned and carcinoma was suggested with the advice "to put the patient under antisyphilitic treatment for from three to four weeks, and then, unless great improvement had taken place, to amputate." On the 10th of March the tumor measured $7\frac{1}{4}$ ctm. in transverse diameter, $7\frac{1}{4}$ ctm. in vertical diameter and 17 ctm. in circumference. After one injection of calomel and one of salicylate of mercury salivation developed on the 8th of April. Treatment was stopped and the patient was not seen for twenty days, when she appeared with the tumor round, movable, increased in size, painless, the upper part hard, the skin telangiectatic. Above the nipple there was a red, dry, slightly hypertrophied patch. The size of the tumor increased in vertical diameter to 12 ctm. She was given inunctions, and potassium iodide up to 150 drops of saturated solution daily, and two injections of salicylate of mercury during April and May. At the end of May the size of the tumor was not diminished, the skin near the nipple was red, infiltrated and adherent. Several soft areas were noticed in the tumor, covered with normal skin. The telangiectasis was more developed. The patient's weight increased. On the 5th of June, on the 15th and on the 25th, calomel injections were given. At the end of June there was still no improvement in the size or aspect of the tumor. Treatment was stopped. In the middle of August a slight decrease in size of the tumor was noticed, and on the 20th of September the whole mass in the right breast entirely disappeared, leaving only a slight discoloration of the skin. There was a deep concavity in the place of the former mass: passing the finger over the skin one could feel the ribs, and the whole mass of the breast seemed to be absorbed. Only a slight infiltration and a slight redness remained around the nipple. There were no enlarged glands. The condition since September has im-

proved still more. The discoloration of the skin is disappearing, and the patient has gained fifteen pounds in weight. This case proves, that in such cases only a very active specific treatment administered for months is to be taken in consideration when the diagnosis is to be made *ex juvantibus*.

Tuberculide. Presented by DR. LAPOWSKI.

This case was presented Feb. 4, 1908 (see this *Journal*, 1908, xxvi, 324).

I bring this case again to your attention to show that the macules undergo changes; some of them have tiny scales, some on the breast have disappeared, leaving minute scars. There also can be seen on the trunk flat, lichen-like shiny papules, which also leave scars. The follicular necrotic lesions are very pronounced, especially on the thighs. The macules, the scars and the follicular necrotic lesions are the result of the same process and cannot be regarded as a congenital process—a disseminated *nævus*. The case belongs to the class of tuberculides—presenting in the same patient several varieties: a process on one hand in some way similar clinically to lupus erythematosus and one on the other to folliculitis necrotica.

New Cases. Lupus Erythematosus. Presented by DR. A. R. ROBINSON.

The patient is a female, blonde, well nourished, age twenty-three years. There is no tuberculosis in the family. The disease commenced three years ago as a small spot on the left cheek near the center, followed soon afterward by a similar lesion on the right cheek, and later by two others on each side alongside of the nose, and a few weeks ago a new lesion formed over the left malar prominence. The lesions range in size from that of a pea to an area one inch in diameter, differing from the ordinary form of erythematous lesions in that the principal feature is congestion with dilated blood vessels, with no scaling and only an indication of scar tissue formation. The smallest lesion could be called an example of the telangiectatic form.

This case, therefore, is presented as an example of lupus erythematosus in which the changes in the vascular system are the marked ones, whilst the corium shows but little change.

Ulcer of the Back of the Hand. Presented by DR. LAPOWSKI.

The patient is a girl, about twenty-five years old, a nurse. Two months ago while putting in order a patient's bed she scratched the dorsal aspect of the left hand. The patient died from typhoid and nephritis, but during his stay in the hospital there developed patches on his tonsils and the nurse was in the habit of cleaning his mouth. The character of the patches was not determined either during life or after death. Three days after the scratch the ulcer developed, remaining since, and increas-

ing constantly in size. Various remedies and irritants were used, including three exposures to the X-ray, but there was no improvement. Two weeks ago the patient was first seen by me. The ulcer was longitudinal, the long diameter in the direction from left to right 3 cm., the short diameter $1\frac{1}{2}$ cm. The edges were infiltrated, raised, sharply defined, clean cut. The floor was cribriform, slightly purulent, and, easily bleeding in some portions, the dark grayish membrane was firmly adherent to the floor. The whole ulcer was hard to the touch, painless. There were no enlarged glands. The body and mucous membranes were clean. No *Spirochæta pallida* (Giemsa's stain) could be found. Under the application of a solution of boracic acid the ulcer diminished in size, and it is now round instead of oval. The condition has remained stationary for the last eight days. The whole appearance of the ulcer suggests very strongly an *ulcus durum*.

Favus of the Arm. Presented by DR. LAPOWSKI.

The patient is a girl, twenty years old. The diagnosis was made when the characteristic favus crust was present. The present thin, whitish scab is only of forty-eight hours' duration: pin-head yellowish points can be seen through the thin scab, corresponding with yellowish conglomerations around some hair follicles. The hair and nails are normal.

Miliary Gummata of the Lip and Palate. Presented by DR. LAPOWSKI.

The patient is a man about 50 years old. He had an *ulcus durum* fifteen years ago. He had only six months' treatment, when early manifestations were present, and no treatment since. The present lesions appeared eight months ago. The right portion of the upper lip is swollen to three times its normal size. Pin-head to pea-sized gummata, arranged in circular and semi-circular patches are scattered over the skin and mucous membrane portion of the lip. The inner cheek, and the hard and soft palate present one mass of pea-size gummata. The whole patch is surrounded by a raised infiltrated border. There are no enlarged glands.

Rodent Ulcer of the Lip; Results of Carbon Dioxide Treatment. Presented by DR. GOTTHEIL.

Richard S., policeman, aged 51. Has had small persistent scabbed sore on his lower lip for fifteen years. During the last year it has increased considerably in size, and has bothered him a good deal. No treatment. Does not smoke. Picks off the scab all the time, and unconsciously licks the sore.

Examination May 15th, 1908. A little to the left of the center of the lower lip is a superficial exulceration with characteristic moderately hard pearly edges. Until September was treated with the X-ray, Cornell tube, cautiously, as I was well aware of the dangers of treating the mucosa

in this way. Moderate reaction once; no improvement in the sore. September 15th, solid CO₂ applied for sixty seconds with moderately firm pressure. A good blister formed; treatment with boric acid wet dressing. October 5th: Ulceration healed; part feels perfectly well; hardly any induration left. Margins still look suspicious. Not presented as a cured case. Resemblance in results to those in X-ray cases to be noted.

Lupus Erythematosus. Presented by Dr. KINGSBURY.

The patient is a mulatto woman 40 years of age. She was born in the West Indies, but has lived in this country for the past sixteen years. Married nineteen years ago and is the mother of six children. No miscarriages. The patient had an attack of pneumonia seven years ago. She has been troubled at times by certain rheumatic symptoms, but states that otherwise her general health has always been fairly good. No tuberculous history. Physical examination showed the lungs to be normal and a negative result was obtained by the conjunctival tuberculin test. *Urinalysis*: Sp. gr. 1012, clear, acid, amber, no glucose, very faint trace of albumen. The eruption began to develop about two years ago. The ears were first affected, but after a few months lesions appeared in the scalp and these rapidly increased in size. There is said to have been considerable pruritus at this time. Patches appeared on the cheeks and nose about one year ago. At present nearly the entire scalp is involved. In places there is evidence of an active process, but for the most part the scalp shows only the characteristic cicatrization of the disease. The scalp is denuded of hair except at the occipital region, where a few scanty locks remain. The ears are hard, thickened, and covered by closely adherent scales. On each cheek there is a depressed circular patch about one and a half inches in diameter. The patches show atrophic change in the center and are surrounded by an increased deposit of pigment. A somewhat smaller patch on the bridge of the nose is similar in appearance to those on the cheeks.

Recurrent Summer Eruption. Presented by Dr. WILLIAMS.

The patient is a regress 17 years of age. She has had measles, scarlatina, and diphtheria. Her bowels are constipated. Her circulation is poor, the hands and feet being usually cold. Otherwise her general health is good. The present eruption appeared when she was about three years old, and has recurred every year since with the beginning of the warm weather, improving or disappearing in the winter. The eruption occurs especially on the shoulders, forearms, hands and legs, and slightly around the waist. The earliest lesion is a small papulo-vesicle, subsequently enlarging to about the size of a pin head. Older lesions are scratched and scabbed papules, which gradually disappear, leaving a permanent light colored scar. The case seems to be an example of the disease described by Crocker under the title of dermatitis recurrens.

THE PHILADELPHIA DERMATOLOGICAL SOCIETY.

The regular monthly meeting of the Philadelphia Dermatological Society was held at the Jefferson Hospital, on Tuesday evening, November 24, 1908, at 8:30 o'clock. Dr. M. B. Hartzell presiding.

Urticaria Pigmentosa, A Case of. Presented by Dr. KNOWLES.

The patient was rather a delicate and anæmic looking girl of eight years, and according to the mother had had this condition for only two years. The case had been under observation at irregular intervals for five months, at each visit an acute urticarial outbreak being noted. Most of the lesions are pea in size, a few are as large as an almond, they are yellowish-brown in color, typical wheals, slight infiltration can be felt with the finger, a linear arrangement following the lines of cleavage of the skin is noted. Fresh wheals appear daily. There is intense pruritus, numerous scratch marks being present. The one hundred or more lesions are distributed on the shoulders, the upper arms, the chest, the abdomen, the upper and the lower portion of the back, the buttocks, and the upper part of the legs.

Pictures of another case of urticaria pigmentosa were also presented, the child being two years of age. The condition originally started at three months of age, the face and the scalp, as well as the trunk and the extremities, were attacked.

A picture of a probable case of pigmented urticaria was also exhibited, but as there were no active lesions but only pigment marks present, the diagnosis as yet cannot be proved.

Erythema Induratum (Bazin), A Probable Case of. Presented by Dr. HARTZELL.

The patient exhibited was a slender, pale girl of 19 years. She had been healthy with no skin outbreak until two and one-half years ago when the present eruption appeared. The disease started as a small patch on the dorsum of the right foot, which spread until at present there is a palm-sized lesion, bluish-red in color, with a somewhat rough surface, a somewhat circinate but ill-defined border; in the center of the patch there is an irregularly shaped, one-quarter-dollar-sized ulcer, with a somewhat sero-purulent discharge. There are also several circinate and deeply pigmented scars on the posterior surface of the lower leg, on either side of the tendo-Achilles. The patient complains of cold hands and feet, particularly of the foot affected, the extremities are slightly bluish in color. There is a considerable amount of pain in the involved foot, particularly at night.

Lupus Erythematosus, A Superficial Case of. Presented by Dr. KATZENSTEIN.

The patient was a woman 40 years of age. She had first noticed the

present eruption one year ago. A small red, slightly scaly spot first appeared on the vertex of the scalp, gradually becoming larger until now it is silver-dollar in size, reddish in color, denuded of hair, with minute openings of the ducts on the surface, and slightly scaly. There is another patch almost as large and of the same character on the right parietal region. The cheeks and the areas behind the ears are bright-red, slightly scaly, and the capillaries are seen to be dilated. Pigmented areas are found on the forehead and the sides of the neck, the skin in contact appearing unusually pale in color. The arrangement of the pigment is somewhat linear.

Herpes Zoster Involving the Palm of the Hand, A Case of. Presented
by Dr. KNOWLES.

The patient exhibited was a boy of 12 years, the outbreak being of five days' duration. The first thing noted was slight pain in the right arm and hand; this was followed in one day by the appearance of pin-point vesicles, which soon became pea in size; there were about a dozen lesions in each group and they were situated on a slightly erythematous base. There were about a dozen groups of these vesicles in all, several patches being located on the forearm, one at the bend of the elbow, and several on the extensor and flexure surfaces near the wrist; there were four groups on the palm of the right hand, one on the thenar, another on the hypothenar eminence, and two at the junction of the phalanges with the metacarpal bones; two other patches were seen between the index and middle fingers, and between the middle and the ring fingers, and the last was found on the ulnar side of the dorsal surface of the hand. Because of the distribution of the groups of vesicles several nerves must have been involved, probably the median, the ulnar, and the radial. Considerable pain was complained of by the patient.

Arsenical Keratosis, with Multiple Epitheliomata, An Extensive Case of.
Presented by Dr. SCHAMBERG.

The patient exhibited was a man 65 years of age, with multiple cancers of the skin due to the long continued use of arsenic. The case was the same as that reported before the American Dermatological Association in 1906. The patient had been given Fowler's solution at intervals during a period of twenty-five years for psoriasis. At times he has taken as much as thirty drops of the solution a day for three months. As a result of a cancerous growth upon the left thumb, the arm had been amputated above the wrist. The patient has over the entire back scores of lesions varying in character from reddish keratotic patches to well-defined elevated epitheliomata of finger nail size. In addition, there were pigmented patches scattered here and there. Upon the scalp and the right wrist there were two fungating epitheliomata of about the diameter of a centimetre. The palms and the soles presented the classic appearance of

chronic arsenicism. Several patches over the abdomen apparently were psoriatic. The patient has a ruddy color of his cheeks, and his general health at the present time is good.

Erythema Elevatum Diutinum, A Case of. Presented by Dr. STOUT.

The patient presented was a small sized girl of 12 years, and the condition had lasted three months. On the index finger of the left hand there was a sharply marginate patch, an inch and one-half by one-quarter inch, extending from the metacarpo-phalangeal articulation to the junction of the second and third phalanges, it was red, with a raised border, made up of individual, pin-head sized papules, and with a somewhat depressed center. Another patch of the same type, three-cent-piece in size, was situated at the base of the ring finger, on the dorsal surface. On the outer side of the same hand two dime-sized patches with the same characteristics were found. On the right hand two pin-head sized patches were found; at the base of the right thumb there was a three-cent-piece sized lesion, and also a patch one inch by one-quarter inch. Three pin-head-sized lesions of the same character as those described were seen on the elbow. With the exception of slight itching and burning there were no subjective symptoms. The child had been excluded from school, the examining physician having diagnosed the case as ringworm.

A Case for Diagnosis. Presented by Dr. STOUT.

An extremely interesting case was presented for diagnosis, the patient being a woman of 67 years. The condition started seven weeks ago with the development of a nodular lesion on the palm of the left hand; this softened, broke down, and discharged a pus-like fluid. Three weeks later the chain of lymphatics extending up the inner side of the arm to the axilla became involved; a red spot would first appear, this would become infiltrated, the skin would break and an ulcer would be formed. This condition was progressive, until at present there are fully a dozen dime-sized ulcers, somewhat punched-out, reddish in color, with a sero-purulent discharge, all connected with the lymphatic cord which can be felt like thick twine to the palpating finger. Numerous nodes can be felt subcutaneously on this lymphatic cord which probably will take the same course as those lesions which ulcerated; new nodules are still appearing. On the left knee there is a hazel-nut sized lesion of the same character as the others. The lymphatic glands in the left axilla are not involved. There is no cough or rise in temperature. The patient resides in New Jersey, where she is a berry-picker.

Dr. Stout suggested an original infection in the palm of the hand, probably while carrying on her occupation.

Dr. Schamberg suggested that it was probably a form of blastomycosis of a subcutaneous type. He referred to the case of almost exactly the same character that was presented by Dr. Davis, at a former meeting of the society.

Dr. Hartzell said he thought a diagnosis could not be positively stated until a microscopic examination was made.

Dr. Stout suggested an original infection in the palm of the hand, probably city at the next meeting.

Acne Vulgaris Limited to the Right Shoulder, A Case of. Presented by Dr. SCHAMBERG.

The patient was a male of 59 years, with a history of having applied a plaster to the right shoulder last June at the site of a fracture. The present eruption developed immediately after the removal of the plaster; the lesions were noted over the deltoid, the scapular region, and on the right upper half of the back; there were about fifty typical acne papulopustules. Excepting about one-half dozen acne lesions on the left side of the upper back, the body was free of eruption.

Papulonecrotic Tuberculid, A Case of. Presented by Dr. STOUT for Dr. WALLIS.

The patient was a male of 21 years, with a history of pulmonary tuberculosis for three years; he had been treated two years at the White Haven Sanitarium, remaining there for nine months. Although the patient is somewhat pale and emaciated, he stated that his health has improved during the last two years. The skin condition originally started four years ago with the outbreak of reddish papular lesions on the dorsal surface of the hands and wrists, these increasing in number and general distribution. At present there must be in the neighborhood of a hundred pin-head to pea-sized lesions on the lobes of the ears, the tip of the nose, the dorsal surface of the hands, the extensor surface of the forearms, the lower legs and the knees, and between the shoulders. The lesions are somewhat raised, bluish-red to bright-red in color, with a slight pustular point in the center, there is a slight inflammatory areolar around some of the lesions; a black eschar forms on these lesions, giving rise to pitting and scarring. The hands, the feet, and the ears are cold and tingle when it is even moderately cool; the ears are somewhat bluish in color.

Acanthosis (Previously Shown). Presented by Dr. SCHAMBERG.

This patient had been presented to the society on several occasions and his case had been reported in detail at the last meeting of the American Dermatological Association. The active lesions have, excepting the scarring, disappeared. There have been a few subcutaneous abscesses on the face. Linear lesions are noted on the upper eyelids. There is a slight keloidal tendency on the forehead.

FRANK CROZER KNOWLES, M. D., *Reporter.*

MANHATTAN DERMATOLOGICAL SOCIETY

69th Regular Meeting, May 1st, 1908.

A. BLEIMAN, M. D., Chairman.

Pemphigus Puriginosus. Presented by DR. W. S. GOTTHEIL.

Mrs. H. S., aged 30, married 10 years, 2 children, no miscarriages. During Jan., 1908, both children had pneumonia: patient nursed them and was very much run down. Towards middle of February present eruption appeared for first time. In the beginning the skin lesions were described as uticarial and later changed into a diffuse papular eczema. Patient was first seen by the speaker on April 23, 1908, and presented the following condition.

Moderately anaemic, otherwise in fair general condition. Practically her entire integument, with the exception of the skin covering both popliteal spaces and lower legs, was the seat of discrete lesions or their remains. Nine-tenths of the efflorescences were the remains of past lesions, appearing as pea or bean-sized spots, some covered with dark and blood stained crusts, but most of them were stained superficial scars in various stages of retrogression. Each one of these marked the site of a pre-existing lesion. At several place were groups of fresh lesions that had appeared during the last 24 hours, or were coming out at the time the patient was presented. The patient affirms that every one of the lesions of the past had come in the same manner. Thus on the ulnar surface aspect of the dorsum of the left hand were a group of some 12 or more vesicles filled with a clear serum. Most of these vesicles were small and round: but five of them were pea-sized or over and elongated in shape: three of them were narrow, oval, and a quarter of an inch in length. The patient believes that the vesicles would be much larger if left to themselves; but she had been in the habit of pricking and emptying them as soon as they formed. On several other parts of the integument were precisely similar new groups of vesicles; in one or two places the patient pointed out groups of erythematous and urticarial-like areas, which she affirmed would become vesicles in a few hours. In one place, in fact, with the aid of a lens, one could recognize the beginning of vesicle formation at the apex of an urticarial lesion. The itching of the primary uticarial lesions is intense, and the patient knows very well when and where a vesicular outbreak is about to occur. Scratch marks and eczematous patches were apparent at various places.

On April 30th, the patient was seen a second time. She felt very much better, especially after baths. No new vesicles at the time, but there was a number of new groups of small circular excoriations, notable on the side of the nose and on the back and shoulders.

The case was presented as one of Pemphigus puriginosus, and iden-

tical with the old Pompholyx of Willan. The diagnosis is made on the facts of the sudden and general onset, the smallness of the clear serum filled vesicles, their appearance on an uticarial or erythematous base, and intense itching. The secondary pigmentation of the skin has not had time to occur. Dermatitis herpetiformis is excluded, from the areas of skin affected, the absence of distinct grouping, and the age of the patient at which the affection has appeared.

Serpiginous Epithelioma of Forehead and Face. Presented by DR. ABRAHAM.

Male; aged 64 years, Bohemian, cigar-maker. Family history negative. Personal history. Was always in good health. No specific history. Present health is excellent. Four years ago, with a lighted cigar, accidentally touched upper part of face, in right maxillary region, causing a small circumscribed sore which refused to heal. A few weeks later, "blebs" appeared in the region of the burn; these lasted two weeks and disappeared without any treatment. In spite of treatment the sore began to spread slowly.

The presenter saw the patient for the first time about the middle of March. The condition remains practically unchanged. About one inch above left eyebrow was a small though deep ulcer with a ragged edge, and discharging a sero-purulent secretion from its lowest angle. The rest of the lesion was covered with a thick, dirty grayish crust. No papules, nodules, nor any signs of irritation were present around the lesion. No subjective symptoms. A similar, but very much larger, ulcer existed at the upper part of the right cheek. The entire lower lid is gone; the ulcer extends from the inner to the outer canthus. The lesion is about two inches in length and one inch in width. The eye itself is but little affected, but owing to exposure the vessels of the conjunctiva and of the upper lid are deeply injected. The general features of the ulcer are the same as the one on the forehead. The only subjective symptom is frequent to almost constant lachrymation.

Giving the man the benefit of the doubt, he was given thirty grains of potassium iodide three times a day and one quarter of a grain of protoiodid of mercury four times, and a mercurial plaster was applied locally. Little or no improvement resulted. The patient will be submitted to the X-rays and results reported at some later meeting.

Lupus Vulgaris of the Face. Presented by DR. ROBERT ABRAHAM.

Eight years ago the patient was treated for a small area of lupus vulgaris of the left side of the face near the ear. The nodules were eurented and the bases were cauterized. In the course of two weeks the boy was discharged apparently cured. The history since then is as follows: Shortly after his discharge the nodules reappeared. Ulceration set in, and the disease slowly spread so that at the present time it occupies about one third of the left side of the face. Typical nodules

are present all around the margin of an ulcerated, granulating area. The patient was put upon mixed treatment and the ulcer epidermized, but the lupoid nodules were unaffected and are still present.

Pityriasis Rubra Pilaris, in Colored Female. Presented by DR. E. L. COCKS.

M., aged 15, colored; came under observation at the Harlem Hospital Dispensary on April 23, 1908. In the early part of March of this year a neoplasm was removed from the axilla. One week later the present eruption appeared. No rise in temperature. The entire integument is involved. The patient first noticed that the legs were rough; this roughness slowly spread upwards until the face became involved. The palms and soles did not become affected. The nails are not involved. There is no pruritus. On the face and trunk the lesions are disseminated, on the arms and more especially the legs, they are closely aggregated. The lesions consist of varying sized papules, on the face, small, moderately hard, on somewhat inflammatory base; on the legs are dry hard papules around the hair follicles brownish in color, and capped with a horny plug. Some of these plugs project about one half of an inch above the surface. The younger lesions are covered with a brownish scale. Examined with a lens broken hairs can be seen.

Trichophytosis Corporis with Concentric Rings. Presented by DR. W. S. GOTTHEIL.

Boy, aged 8, has had a typical ringworm of the body for nine weeks, extending from just above the wrist to the middle of the right forearm. It is about three inches in diameter. It is peculiar in that there are at least three concentric rings of advancing fungous growth; an outer narrow margin of papulo-vesicles, then a small area of normal skin, then another ring similar to the first one, and finally a central mass occupying the largest part of the affected area. The arrangement is unusual, since as a rule the central and first affected area of ringworm of this variety is either clear of marked evidences of active fungous growth, or the entire affected skin is filled up with it.

Generalized Lichen Planus and Pityriasis Rosea. Presented by DR. W. S. GOTTHEIL.

Blanche B., Russian, in United States 12 months, has had her present eruption for three months; complains very little of it but seeks relief on account of the redness of her cheeks which is natural to many Europeans, though rather unusual in this country, and has no relation to her eruption. This appears to be general, but is most marked on chest and back, and with few lesions on the extremities. Many of the trunk lesions look like pityriasis rosea; large patches with faded yellowish centres, slightly scaly, and with distinct pinkish margins. Close examination with a lens reveals that many of these patches are distinctly

made up of groups of typical lichen papules, and others have the characteristic scalyness of pityriasis rosea.

Three Cases of Papulo-Necrotic Tuberculides. Presented by DR. KINGS-BURY.

CASE 1: M. P., female, twenty years of age. Born in Ireland but has lived in this country for the past five years. She is employed as a stenographer and her environment from a hygienic standpoint is a desirable one. No family or personal history suggesting tuberculous disease. Patient states that her health has always been good except for an attack of typhoid fever seven months ago. Shortly after her recovery from this disease she noticed that there were small pimples behind her ears. These soon broke down, leaving superficial scars. Somewhat later similar lesions appeared on the forearms and legs. These also ulcerated and left scars. This condition lasted about two years, and then the patient remained practically free of the eruption for about one year. The beginning of this improvement was coincident with her arrival in this country. Four years ago, however, the eruption reappeared on the forearms and legs, and although at times improvement is noted, she has never been entirely free from active lesions. Patient is well nourished but is rather anaemic. She has auburn hair and blue eyes. Physical examination of the chest was negative and there were no enlarged glands. At present typical lesions in all stages are found on the forearms, hands and legs. There are several hard nodules on the forehead and a number of inflamed papules behind the ears. A nodule was excised from the forearm and a piece of the tissue implanted subcutaneously in a guinea-pig. After nine weeks an autopsy was performed, but it did not reveal any evidence of tuberculosis. No giant or epithelioid cells were found in micro-sections made from same specimen.

CASE. 2: L. M., thirty-five years of age, widow. Born in the United States. She is well nourished and states that she has always had good general health. No tuberculosis history. Physical examination of chest was negative. No glands palpable. She has hair of a light brown color and grey eyes. The eruption has been present for the past five years. It is confined to the forearms and hands. There are only a few active lesions at present, but the forearms are studded with circular cicatrices. These average about one quarter of an inch in diameter. Most of them are white, although a few are slightly pigmented. Several hard papules are found on the extensor surfaces and a few of them show slight umbilication and beginning necrosis. There are a large number of small hard papules on the back of the hands. Only a few are umbilicated, and there is very little scarring on the hands. There are now some inflamed and ulcerated lesions on the middle and ring finger of the left hand. Patient states that sores on the fingers have at times been quite painful but that otherwise the disease has caused her but little discomfort.

CASE 3: H. H., female, single. She was born in the United States, and is now twenty years of age. Well developed and apparently in good general health. She has light brown hair and blue eyes. No tubercular family history. Physical examination showed the lungs to be normal and none of the superficial glands were enlarged. Patient has been troubled with the eruption for the past three years and believes that she had a similar condition when quite young. Lesions are now present on the arms, forearms, and legs. One very characteristic lesion is found near the center of a vaccination cicatrix on the left arm. The majority of the new lesions are about the size of a split pea. They begin as small papules and gradually develop into hard nodules of a purplish color. After a while they show evidence of central necrosis and are covered by an adherent crust. This is often removed by scratching, leaving a depression at the center. Finally this is replaced by a white scar. Several of the lesions were excised from the forearm, and numerous micro-sections were stained for tubercle bacilli, but with the usual negative result.

Epithelioma Nasi at the Age of Twenty-seven, Simulating Gumma.

Presented by DR. GOTTHEIL.

John F., aged 28 years, ambulance driver at Lebanon Hospital; sleeps over the stable at the hospital during the 13 months of his employment there. Denies syphilis, and shows no signs. One year ago a pimple appeared at the left side of the columella nasi, which he "picked," and which increased in size. No treatment for the first four months save peroxide washings. He then came to the hospital dispensary for treatment. There was then an elevated exulcerated mass occupying the entire surface of the septum on its left side, extending to the columella in front, and for half an inch upwards and inwards. Edges not hard or pearly; base crusted; diagnosis, Exulcerated Gumma. During the succeeding months he received energetic treatment, including 24 mercury salicylate injections, and the iodide up to nearly 600 drops of the saturated solution daily. There was no immediate result from treatment; but after a time the ulceration cleaned up, the crusts disappeared, the size of the lesion decreased. During the last few weeks, however, the process has remained stationary; and a slightly waxy indurated border has appeared at the lower margin of the lesion. Tuberculosis can be excluded, I think, on account of the margin and the absence of tubercular foci in the lesion or around it. I am inclined, therefore, in spite of the patient's age, to favor the diagnosis of epithelioma. As regards treatment, I consider both the knife and cauterizing agents inapplicable here, as certain to cause very great mutilation. I shall use the ray, though I am not a believer in its permanent curative action in these cases.

M. B. PAROUNAGIAN, M. D., *Secretary.*

REVIEW of DERMATOLOGY AND SYPHILIS

Under the charge of A. D. MEWBORN, M. D.

DISEASES OF SWEAT AND SEBACEOUS GLANDS

By HERMANN G. KLOTZ, M. D., New York.

Acne Aggregata seu Conglobata. KARL REITMANN. *Arch. f. Derm.* XC. 249, April, 1908.

Under this name a type of disease is described which has much in common with acne vulgaris, but differs in some important points. In both diseases there are present: some seborrhœa, the copious appearance of comedoes, the presence of typical nodules; *i. e.*, there is present a process in which the sebaceous glands and the connective tissue surrounding the same, furnish the origin and the principal seat of the pathological changes. But acne aggregata does not begin until some time after puberty and has been observed only in men; it is accompanied by a considerable laxity of the skin and is localized on the entire trunk, face, extremities and genitals. Characteristic is the appearance of very large comedoes and of the so-called comedo-scars (Lang), the nearly universal presence of small comedoes in almost every follicle of the entire trunk as far as the scalp, the follicular and perifollicular inflammatory infiltrations which are largely confluent and, when softened, open on several places, the laxity and the brownish color which suggest tuberculous processes, and the typical exitus in characteristic depressed scars, also the frequency of the double comedoes. The histories of four cases illustrate the condition which does not seem to be uncommon in the clinic of Riehl.

Hidrocystoma Tuberosum Multiplex. WILHELM STOCKMANN. *Arch. f. Derm.*, XCII, 145, October, 1908.

Stockmann reports the results of the examination of three cases of that disease, which was first described by Kaposi under the name of lymphangioma tuberosum multiplex; and which M. Joseph has named Hydrocystoma tuberosum multiplex. Stockmann goes over the literature of the disease and comes to the conclusion that we have to do with tumors which may be designated as tardive nævi and which originate from abnormally placed sweat glands.

These abnormally located glands are arrested as early as the embryonic stage by forming compact strings of cells, which grow from the epidermis into the cutis. In the upper and middle portions of the stratum reticulare cutis they branch out in different directions, and by cell proliferation cell nests are formed in some places, which gradually are transformed in cysts, partly by degeneration of the central cells, partly by the retention of the secretion from secreting gland cells which have developed; or the cysts may be formed by the simultaneous action of both these processes. Through the further development and growth of the cysts the connecting cell cords dwindle and soon no further con-

nection can be recognized, neither between the cysts nor with the epidermis. Now the cell ducts appear only in the shape of short offshoots developing from the cysts and occasionally as elongated interpapillary plugs.

Other abnormally placed sweat glands may develop sufficiently to form coils of normal appearance and secretion. But from the duct which has a lumen, and in general does not differ much from the normal, by budding and cell proliferation cell strings develop, which grow into the surroundings. They mostly occur in the middle portion of the corium, but they may also originate from the base of the sweat gland duct. Such strings behave exactly like those which originate from the sweat gland formations, which were arrested in the embryonal stage.

Since the tumor consists of cysts which apparently at least in the majority are formed by the stagnation of secretion produced in the cells of sweat glands, the name hidrocystoma seems justified, while tuberosum multiplex may be retained in the name as a clinical feature and for the differentiation from other hidrocystomas.

Sebaceous Gland Hyperplasia and Epithelioma. G. A. GAVAZZENI.

Arch. f. Derm. XCII, 323, October, 1908

A tumor on the forehead of an elderly man, which had grown slowly at first, but later on quite rapidly, by the microscopical examination was shown to present normal sebaceous glands and in some places a basal-cell epithelioma. It was equally impossible to demonstrate a connection between the tumor masses and the sebaceous glands and the surface epithelium. The author considers at length the question, how the combination of the epithelioma and the large and numerous sebaceous glands could be explained; he concludes that the epithelioma originated on the basis of a senile hypertrophy of the sebaceous glands or of a senile sebaceous gland nævus.

Perifolliculitis Agminata Suppurativa, Saurefeste Bazillen in zwei Fallen von. KARL PREIS. *Arch. f. Derm.* XCII, 205. October, 1908.

In two cases of perifolliculitis agminata (Acnitis) in the pus enormous numbers of acid- and alcohol-fast bacilli were found, but not in the foci of the perifollicular inflammation, but in the follicles themselves which were dilated into cysts and formed real hollow ducts.

Inoculation and culture-tests were negative. It is not unlikely that these bacilli which preserved their acidfast qualities to a certain extent in celloidin sections, will be found yet in many cases of perifolliculitis agminata suppurativa. It must be left to further investigations to decide whether they have any etiologic connection with that skin disease.

Acidfast bacilli may also obtain access to the pus in torpid scrofula from neighboring bridges and niches and be mistaken for tubercle bacilli.

BOOK REVIEWS

INTESTINAL AUTO-INTOXICATION.

By A. Combe, M. D., Professor of Clinical Pediatrics at the University of Lausanne; Chief of Clinic for Children's Diseases; President of the Swiss Pediatric Society. Together with an appendix on the lactic ferments with particular reference to their application in intestinal therapeutics; by Albert Fournier, Former Demonstrator at la Sorbonne, Paris. Only authorized English adaptation by William Gaynor States, M. D., Clinical Assistant Rectal and Intestinal Diseases, New York Polyclinic; Member of American Medical Association; Member of State and County Society of New York; West Side Clinical Society, etc. With eighteen figures in the text, four of which are colored. Rebman Company, New York.

The author of this admirable work is not a dermatologist so he has refrained from entering into an extensive discussion regarding the relationship existing between intestinal autointoxication and the cutaneous diseases, but the book is rich in useful and valuable knowledge and should be found exceedingly interesting and instructive, especially to the dermatologist who desires to possess a broad knowledge of the subject. A careful perusal of its pages will convince the reader that intestinal autointoxication should be given very careful consideration in the etiology and course, not only of general diseases, but also of the disorders of the skin. The book cannot be said to be as exhaustive bacteriologically as, for instance, that of Herter, nor does the author devote as much attention to the saccharolytic type of intestinal trouble, but from a clinical standpoint the work is more complete than any we have so far seen. The difficult task of translation has been accomplished in a masterful manner and the English equivalents have been particularly well chosen.

The work opens with a consideration of the toxic bodies produced in the intestines, which is followed by a delightful description of the antitoxic functions of the organism. Then comes the etiology, pathogeny and symptomatology. The chapters on the latter subject, a very difficult one to handle, are well done indeed. The question of diagnosis is then considered and the author closes by devoting 213 pages to treatment. This part of the book is especially useful to the clinician for it deals with about every conceivable therapeutic measure, including the lactic and metallic ferments, the so-called intestinal disinfectants, hygiene, diet, lavage, hydrotherapy, etc. Unlike most foreign works, the book is well indexed; it is also well bound and printed in plain type on good paper. Many will undoubtedly offer the objection that the author is carried away with his subject, that he is 'too enthusiastic and that he takes too much for granted, but most of his assertions are supported by extensive clinical and bacteriological experiments both by himself and others. Students of this subject should not be too hasty in criticising the facts as presented. They must be negated not by theoretical deductions, but by actual and extensive physiological and clinical experimentation. So far, at least, the majority of investigators are in fair accord with the opinions as advanced by the author.

G. M. M.

LEHRBUCH DER HAUT—UND GESCHLECHTSKRANKHEITEN, FÜR STUDIERENDE UND PRAKTISCHE AERZTE. ZWEITER THEILS DIE GESCHLECHTSKRANKHEITEN von *Ernst Finger*. Mit 8 lithographischen Tafeln. Sechste, wesentlich vermehrte und verbesserte Auflage der "Syphilis und Venerische Krankheiten." *Leipzig und Wien, Franz Deuticke. 1908.*

As the title explains, this is not really a new book, but a new edition of an older one, the last, the 5th edition of which had appeared in 1901. The author states that he delayed the publishing of this new edition because he considered it absolutely necessary to wait the results of the new discoveries of the possibility of the inoculation of syphilis in monkeys and of the spirochaeta pallida as the cause of syphilis. This book now presents the attempt to re-build and reconstruct the entire chapter of syphilis upon the new etiological basis. The new experimental, bacteriologic-etologic and sero-diagnostic investigations, the author says, have done away with much that was old and hypothetical and have created new and securely founded knowledge. It may well be questioned whether the time has really been reached for such an undertaking and whether sufficient facts have been established by this time to warrant an entire reconstruction of our empirical doctrine.

On the strength of the demonstration of the spirochaeta pallida in tertiary lesions the infectiousness of the same has theoretically to be admitted, but practically under the ordinary conditions of life they must be considered non-infectious to the healthy and hardly dangerous (page 15). Regarding the physiological secretions, the infectiousness of milk is not beyond doubt; as to the urine the demonstration of spirochaetæ in the urine of patients suffering from secondary syphilitic nephritis seems to prove the possibility of infection. Saliva is not mentioned, but owing to the successful inoculation of two monkeys with sperma it must be admitted that sperma may carry infection.

Greatly changed is the conception of immunity: recent investigations seem to demonstrate that the skin of the syphilitic does not possess absolute immunity during the stage of activity and possible relapses (p. 21), but reacts identically on its own and on extraneous virus. Immunity begins to develop as early as the period of the primary affection and gradually increases in intensity during the secondary stage, but it does become absolute only at the moment when syphilis ceases to relapse. Hereafter it again begins to diminish with more or less rapidity so that re-infection may occur, but extraneous virus as well as that remaining in the organism now produces changes of the gumma type. The gumma has to be considered as the outgrowth of the virus within a transmuted organism ("umgestimmt," tuned to a different pitch), an organism which, because still immune, does not allow an abundant proliferation of the virus, but in which is produced an oversensitiveness and an exaggerated reaction towards the scanty virus and its products. After the patient has passed through the tertiary stage or has escaped it entirely the immunity further decreases and the organism's susceptibility to the virus of syphilis gets nearer and nearer to that of the healthy one.

The demonstration of the sp. pallida in the majority of the syphilitic skin lesions renders it without doubt that every single lesion presents the local relation to a localized focus of reproduction of the syphilitic virus. But it seems that the first eruption has a different origin from the later, relapsing syphilitic exanthemata. While the former are produced by the hematogenic way, due to embolic deposits of the virus, this origin is not considered common for the later lesions, although not entirely denied; their occurrence is rather explained by deposits of the virus which remain from the first eruption on certain localities, in a state of latency at first, but later on called into activity again by causes unknown at present. These residual foci seem to persist particularly in the periphery of the original lesions and give rise to the frequently observed annular arrangement of the later syphilides. This explanation would appear more prob-

able if the first eruptions were always as widely distributed over the body as described in the book, instead of frequently appearing in quite scanty numbers and in restricted areas, and if the later eruptions did not often show a predilection for some localities like the palms and soles, the scrotum and anal fold, the face and other places which are by no means regularly included in the first eruption. To proclaim such dogmas seems rather premature, particularly in the face of the paucity of actual facts revealed regarding the life history of the *spirochaeta pallida*.

The differential diagnosis (p. 88) of pityriasis rosea is by no means always as simple as stated here, the itching mentioned as characteristic of this disease, is far from constantly present. Erythema multiforme and nodosum syphiliticum (p. 78) are given due consideration. Balanitis, urethritis and vaginitis are mentioned as dangerous sources of infection (p. 82). The relapsing papular syphilide of the palms and soles (p. 92) is well described, but it is not mentioned that it may appear at a very late period. Leucoderma (p. 100) always develops from a macular lesion and the transposition of the pigment occupies the seat of the former, but where a papular lesion is the starting point an annular zone of pigmentless skin appears around the single lesion which, narrow in the beginning, later on spreads, while in the center the brownish-red pigmentation remains as the effect of the papule. In the chapter on hereditary syphilis (p. 208) the conditions of germinative and postconceptional infection are carefully considered in the light of the new investigations which have shown some quite unexpected results.

Coming to therapeutics, Finger is an adherent of the chronic intermittent treatment (p. 259); the manifestations of the primary stage, as a rule, are treated locally, except under certain complicating conditions general treatment is not commenced until the manifestations of general syphilis, the so-called secondary symptoms, have become fully developed. It is greatly to be commended that the author has resisted the temptation to relinquish this old rule on account of the new discoveries, while so many writers, particularly in this country, have hastily abandoned the old method. Finger acknowledges that some efforts, to prevent by all means the general infection of the patient, that is by the excision of the primary lesion followed immediately by some energetic general mercurial treatment, have been given encouraging results. However, this question, he says, is still in the stage of an experiment, and perhaps, on account of the individual variations in the course of the disease, will not give results which can be applied to all cases.

The second part of the book is devoted to the venereal ulcer. Blennorrhoea is the subject of the third part in which are comprised the gonorrhoea in men with its complications, and gonorrhoea in the female also with local complications; then follow those complications which are common to both sexes: rheumatism, angioneurotic exanthemata, blennorrhoea conjunctivæ, iritis gonorrhoeica and rectal gonorrhoea. The author's views on these subjects are well known from his book on blennorrhoea of the Sexual Organs. In a final fourth part we find some diseases of the sexual organs which occur either idiopathic or as complications of venereal diseases, namely: balanitis, vulvitis, condylomata acuminata, phimosis, paraphimosis, lymphangitis and adenitis. It would have been appropriate to add to this class of diseases a chapter on herpes progenitalis, an affection much neglected in textbooks and frequent source of mistakes and errors.

The eight beautifully executed plates illustrate the pathological conditions and the bacteriology incidental to the venereal diseases, particularly the *spirochaeta pallida*. For the illustration of the gonococcus Pappenheim's methylene-green pyronin stain has been used.

H. G. K.

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CANCER EN CUIRASSE

By S. POLLITZER, New York

CANCER en Cuirasse, described by Velpeau just seventy years ago, constitutes one of the rarest forms of this terrible malady. The frequency of its occurrence is a matter on which there is a considerable difference of opinion. Williams records two cases in an experience of one hundred and seventy cases of mammary cancer; Coley in his extensive practice has seen three cases; while Gross finds it on an average in one case out of twenty-four of cancer of the breast. On inquiry among dermatologists and surgeons of my acquaintance I find that many with a large experience of cancer have never seen a typical case of cancer en cuirasse. A surgeon in New York, formerly assistant in one of the largest clinics in Europe, who thinks he has seen fully three hundred cases of cancer of the breast, was able to recall but a single case of cancer en cuirasse, and that had occurred in Billroth's clinic in Vienna. There is evidently some confusion in the conception of cancer en cuirasse and many forms of infiltrating cancer of the breast,—the miliary carcinosis or *squirre disseminée* and the *cancer en plaque* of Velpeau—are often erroneously grouped with cancer en cuirasse.

As to the course of the disease, Kaposi says the axillary glands the disease there is also much divergence among the authors. Most writers to-day assume that the cuirasse form is always secondary to a cancer of the breast; and it must be admitted that the majority of cases develop after an operation for mammary cancer or present when first seen by the surgeon a distinct and often an ulcerating tumor of the breast. Among recent writers Handly and Williams may be cited as regarding the condition as secondary to mammary cancer, while Rodman says it may appear in the skin of the thoracic wall before there is a tumor of the breast, and Besnier says explicitly that he has seen many examples of it independent of mammary cancer.

Read before the 32d Annual Meeting of the American Dermatological Association, Annapolis, September 25th, 1908.

As to the course of the disease, Kaposi says the axillary glands soon become tumefied and the disease runs a rapidly fatal course. Erichsen says it is remarkable that the axillary glands are not infiltrated or the constitution rendered cachectic at nearly so early a period as in the ordinary course of mammary cancer. And so on with almost every important feature of the disease. One observer speaks of the severe pains, the occurrence of ulceration, the early development of internal metastases; another comments on exactly the opposite conditions.

These considerations make it seem worth while to record a case which has been under my observation for the past ten months.

Widow, sixty-nine years old, born in Germany, mother of six children, one of whom, the oldest son, died five years ago at the age of twenty-seven of cancer of the liver (autopsy). She is a large woman, weighing about two hundred pounds, with good color in the face, and a general appearance of health. Her sole complaint is an intolerable itching more or less over the entire trunk, but especially over the upper middle portion of the chest over the sternum. The itching began over the chest at least two years before, and there was noticeable a slight reddening of the skin in that region; gradually the skin became tense and indurated and small nodules developed. In the course of a year the process extended over the chest, principally toward the right side and downward, and the right breast became considerably enlarged, but was not painful. During the second year the erythema and induration extended over the greater part of the trunk, the enlarged right breast gradually shrank and became smaller than before, while at the same time the left breast enlarged also without pain. During this period she had been seen by several physicians who regarded her trouble as "some kind of a dermatitis," and until I saw her two years after the beginning of her symptoms there had been no suspicion that her grave illness was more than a trifling, however annoying, dermatosis. For a period of six months she had been systematically treated by exposure to the X-rays for the relief of her itching, but without benefit.

When I first saw the patient ten months ago (November, 1907) the process extended over the major portion of the trunk from the clavicles to the pubis and from the shoulders to near the level of the sacrum. It was a little more extensive on the right than on the left side, reaching irregularly down to the level of the right trochanter, and over the abdomen there were considerable areas of normal skin. The greater portion of this extensive area was almost uniformly red in color. In places, as in the hypochondriac regions, there were

breaks in the continuity of the erythema and over the abdomen in general the outline of the affected area was very irregular and at its periphery patchy in character. That is, in the region of apparently normal skin there were patches of erythema. These outlying islands were of more recent origin and indicated the way in which the process extended, by confluence of outlying patches.

Nearly everywhere over this erythematous area small flat glistening polygonal papules were to be seen in general appearance strikingly like papules of lichen planus. In some places they were closely aggregated, in others sparse; only the most recent areas of redness were free from them. Most of the accounts of cases of cancer en cuirasse do not mention this peculiar appearance, though reference to small and large papules or nodules is frequent. Perhaps the circumstance that these cases are not often seen by dermatologists may account for this omission. In the excellent report of a case by one of our colleagues, P. A. Morrow,* the resemblance of the small papules to lichen planus is commented on.

In addition to these lichenoid papules there was a great number of papules and nodules of a different character. They were obviously situated in the cutis without change in the epidermis over them. They varied from a pin-head to a pea in size, and while generally round were sometimes of slightly irregular form. On palpation they gave the sensation of solid tumors in the cutis not attached to the epidermis. In their distribution there was no regularity, but the more recent erythematous areas were free from them.

The skin over the upper part of the sternum presented a peculiar cicatricial appearance. Small glistening nodes, whitish-pink in color, irregularly round in shape, were interspersed with minute band-like elevations, the whole area resembling very strongly the hypertrophic cicatricial tissue resulting from a burn. This region was particularly pruritic.

The skin over the right breast like that of the rest of the thorax had a bright red hue and was dotted with superficial lichenoid papules and small deeper nodes. The mamillary areola was strongly retracted, presenting with the projecting nipple a crateriform appearance. The breast seemed of normal size, but the patient stated that it was distinctly smaller than it had been originally. The skin over the left breast showed the same lesions as that on the right side, but there was no contraction at the nipple and the entire breast was very much larger than that of the other side, and, according to the patient's statement, much larger than normal. On palpation of the

* *Jour. Cut. Dis.*, 1884.

affected region over the extensive erythematous areas the hand encountered a peculiar elastic firmness; the skin seemed hard and thickened so that deep palpation was quite impossible. So resistant were the cutaneous tissues that notwithstanding the greatest efforts I was unable to satisfy myself as to the presence or absence of a tumor of the breast. The most careful exploration of the axillary cavities,—the skin of which was not thickened—of the supraclavicular and the inguinal regions failed to disclose any large or indurated glands.

To sum up the clinical features of this case we have—a woman of nearly seventy, in apparently good health, whose cutaneous surface over the greater part of the trunk, front and back, has, during the previous two years, gradually grown vivid red in color, firm and almost incompressible, sclerodermatous in appearance, dotted with small lichenoid papules and larger deep nodules while over the sternum it has assumed a cicatricial appearance; at the same time the breasts have in turn gradually increased in size, one of them subsequently contracting, the entire affected region intensely pruritic; no palpable maxillary or other lymphatic glands and no distinct mammary tumor.

It will perhaps assist in conveying a clearer idea of the remarkable picture presented by this case when I say that my first thought on examining the patient was that I was dealing with a case of diffuse scleroderma complicated by lichen planus. The appearance of the right nipple, however, gave me a hint of the correct diagnosis, which a further examination readily confirmed.

In the ten months since I first saw the patient the changes in the condition have followed the course of its previous development. The area of redness and induration now extends further down over the abdomen and behind reaches to the gluteal region; it has spread over the right shoulder and involves the upper third of the arm, while the entire arm down to the wrist is greatly enlarged, the swelling of the arm (except at its upper reddened portion) presenting, however, the character of an ordinary obstructive œdema, that is, it pits on pressure. Six weeks ago (middle of August) the right leg on its anterior aspect from Poupart's ligament down to near the patella became suddenly swollen and bright red in color. A physician who was called in, the patient being then in the country, diagnosed erysipelas. The redness slowly faded to some extent, but is still visible in nearly its entire outline, while there are patches of a brighter hue in the area originally involved and the swelling and induration persist, the thigh being about three inches larger in cir-

cumference than its fellow. The epidermis over this area shows no change, there is no desquamation and no papules or nodes have developed. The general health of the patient deteriorated somewhat under the confinement which the swelling of the leg brought about. She has lost a little in weight and has an anæmic appearance, but her color is certainly not that of cancerous cachexia, and in the past fortnight since she has been out of bed she has gained somewhat in strength.

For examination under the microscope a piece of tissue one by two centimeters on the surface extending well into but not through the subcutaneous fat was removed under cocaine from a point about twenty-five cm. downward and outward from the right nipple. The region selected was the border of a bright red infiltrated patch of moderate size, whose surface presented a number of the small lichenoid papules described above.

The most striking feature of the sections was the comparatively slight evidence of change in the cutis, in which the clinical symptoms would have led one to expect profound changes. There was practically no sign of inflammatory reaction. Blood-vessels, fibrillary tissue, and glands appeared unchanged. The entire cutis, except for the change I shall presently describe, seemed normal. At one point, where the section had touched a small node, there was an aggregation of cancer cells of a glandular type in the upper part of the cutis. Throughout the greater part of the sections practically the sole change was to be found in and about the lymph-vessels, especially in those of the upper portion of the cutis and of the sub-papillary plexus. These vessels were found almost everywhere distended, in some cases to perhaps ten times their normal diameter, with masses of cancer cells. Only a comparatively small portion of the cancer tissue was found lying outside of lymph vessels, and then generally in close proximity to these vessels. The picture formed a striking contrast to the common forms of infiltrating cancer of the skin, in which massive clumps and irregular bands of cancer cells compress and displace the normal tissues, or pass as rows of cells in the lymph spaces between the bundles of connective tissue. One got the impression, when the cancer cells lay outside of the lymphatics, that they had reached their destination by escaping from these vessels. I am able to show you a photograph¹, illustrating very beautifully the perforation of a lymph vessel by the growing mass of cancer cells, and I would particularly call your attention to the absence

¹ I am indebted to my friend Dr. Mandlebaum, pathologist to the Mt. Sinai Hospital, for the microphotographs illustrating this paper.

of any signs of round cell infiltration in the neighborhood of this process, because some authors attach great importance to the supposed inflammatory reaction with which rupture of a "permeated lymphatic" is assumed to be regularly accompanied.

Lymph vessels, as you know, are normally few or absent in the subcutaneous fat, and in the deeper portions of the sections the cancerous tissue was limited to a few isolated groups of three or four cells. The cancer cells themselves were, as I have said, of the type of glandular cancer and were notable for their large size; indeed many of them resemble cells of the type known as *carcinoma gigante-cellulare*. The extent of degenerative changes in them was also striking. Great numbers of the cells showed one or more large vacuoles, as if they had undergone hydropic or mucoid degeneration. These changes were so frequent and striking that I suspected that they may have been brought about by the influence of the prolonged course of X-raying to which the patient had been exposed before I saw her. But I rejected this view when I found cells, showing the same degeneration in the deeper tissues, while directly above them nearer the epidermis there were some which did not show this change.

The epidermis throughout the section was the seat of a microscopic œdema and was moderately thickened both in its supra- and interpapillary portions. This hyper-acanthosis was especially marked over groups of three or four papillæ and it was these circumscribed areas of thickening that gave rise to the lichenoid papules.

The histological study throws no light on the essential cause of this variety of cancer. Why the cancerous process should in one case progress through the lymph spaces and in another practically confine itself to the lymph vessels remains as much a mystery as ever. And that with this universal involvement of the cutaneous lymphatics the lymph glands should remain free for so long a period and the thoracic and abdominal organs escape metastasis is a matter of the greatest interest. Suffice it for the present to record the facts.

The clinical features otherwise are sufficiently explained under the microscope. The lichenoid papules are circumscribed areas of hyper-nutrition due to the blocking of the lymphatics below them; the erythema is a secondary or reflex process, resulting probably from the effect of the toxins on the vaso-motors in a region in which the outflow of lymph is impeded; the induration may be ascribed to the cancerous infiltration, and the cutaneous nodes are small tumors of cancer developed at least in large part from cells that have escaped from the lymphatics.



FIG. 1.



FIG. 2.

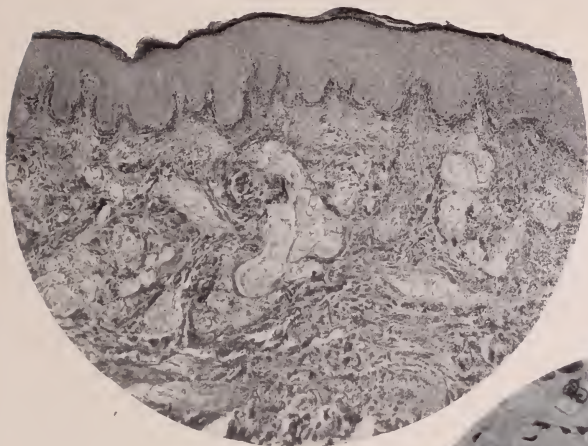


FIG. 3.

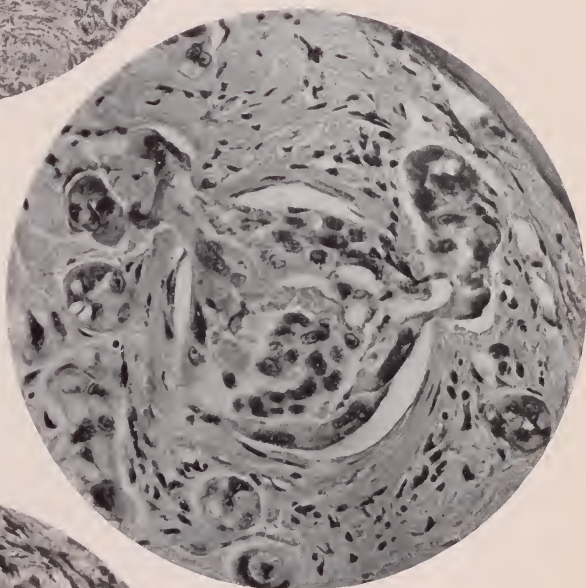


FIG. 4.

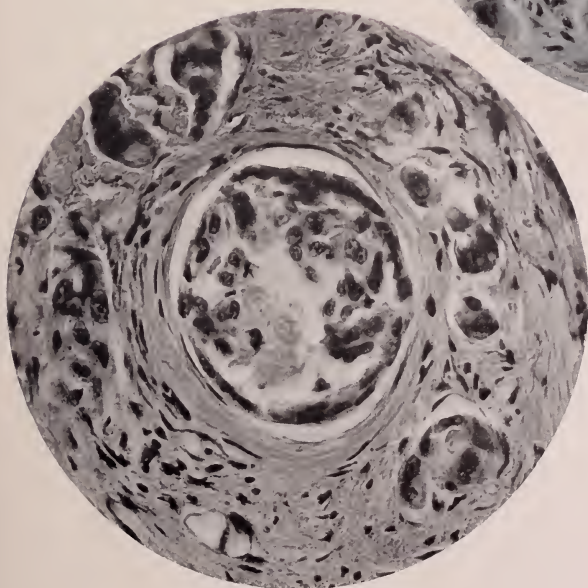


FIG. 5.

Handly* speaks of cancer en cuirasse as pachydermia carcinomatosa, and says that "cancer en cuirasse so far as it concerns the skin is in its earlier stages a non-cancerous condition identical with the pachydermia which is seen in elephantiasis arabum and in some cases of long standing eczema . . . and later on it is usually accompanied by nodular cancerous invasion of the skin." On the basis of my sections I take the liberty of rejecting this view completely. Nowhere was there any evidence of the connective tissue increase, which is the essential feature of pachydermia. I take it that the reddened indurated skin, free from cancerous nodes, represents an early stage of the disease; and here we have already the cancerous process permeating the lymphatics. No doubt the tissues of the right arm in my patient would show no sign of cancer, but there we have simply an obstructive œdema, a condition which in long standing cases might be confounded with pachydermia. This condition, however, is a common occurrence in tumors in the neighborhood of the axilla and is quite distinct from the brawny erythematous tissues of cancer en cuirasse.

The patient died about the middle of November, three years after the beginning of the cutaneous changes and one year after she came under my observation. During the last month of her illness she grew decidedly cachectic and great weakness, with spells of cardiac irregularity supervened. Toward the close there were some symptoms which pointed to a possible meningeal involvement, but they may better be explained as due to the progressive cancerous intoxication. She died before definite signs of visceral metastases appeared. An autopsy was not obtained.

* Cancer of the Breast, London, 1906, p. 149.

DESCRIPTION OF PLATES

FIG. 1 and 2. Clinical photograph of patient with Cancer en Cuirasse.

FIG. 3. Showing cancer cells mainly in lymph vessels; moderate circumscribed thickening of the rete.

FIG. 4. Endolymphatic cancer breaking through vessel wall.

FIG. 5. Cancerous injection of cutaneous lymphatic.

CHEILITIS GLANDULARIS APOSTEMATOSA

(With Case Report)

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IN 1870 Professor Richard Volkmann¹, of Halle, first described a peculiar form of chronic inflammation of the lower lip characterized by enlargement of the mucous glands and much dilatation of the follicular openings, accompanied by a free discharge of thick mucus.

The resumé of Volkmann's paper will not be out of place here.

His conclusions were based upon the study of five cases of the disease. All of the patients were adults, and three of them had previously suffered from syphilis. The remaining two denied all knowledge of luetic infection.

The course of the disease was very similar in all five cases, although more severe in some than in others. The entire lower lip became gradually and painlessly swollen, hard and firm, giving the face a heavy, unpleasant expression.

There was some hyperæmia of both the skin and mucous membrane. The mucous glands of the lip were enlarged to the size of a millet seed or more and could be plainly felt through the mucosa. When the lip was everted it was possible to see the widely dilated follicular openings, some of which were sufficiently large to admit the tip of a probe. On pressure, which gave rise to very little discomfort, the glistening secretion exuded, resembling dew drops on the previously dried surface of the lip.

In three instances abscess formation occurred, with the development of fistulous tracts which were very slow to heal. In no case was there actual ulceration, and at no time could syphilitic ulcers or plaques be detected on the lips or on the lining membrane of the mouth or pharynx.

In all of the cases there was present a rather severe catarrhal inflammation of the buccal and pharyngeal mucous membranes.

Three of the patients recovered in from four to eight weeks under the use of potassium iodid internally, with potassium chlorate mouth washes and local applications of silver nitrate.

¹ Volkmann: *Virchow's Archiv.*, 1870, B. I., S. 142.

One case (syphilitic) was but slightly benefited by treatment, the disease failing to respond favorably to even the most heroic measures. Large doses of potassium iodid, together with repeated cauterization (under chloroform narcosis) with pointed sticks of silver nitrate having proved ineffectual, cataplasms of copper water, tincture of iodine and like remedies were employed, all with but slight success. Compression, by means of a lead plate and a rubber bandage, gave no better results. Finally, the trouble seemed to improve somewhat by the use of potassium chlorate.

The remaining case also proved stubborn. After three weeks of treatment the patient left Halle without reporting his condition.

Volkman believed the disease to be due to a catarrhal inflammation of the labial glands, and proposed for it the name "Cheilitis glandularis apostematosa," or "Myxadenitis labialis." In his opinion syphilis played no direct part in the etiology. More likely the cause could be traced back to the catarrhal condition of the pharyngeal and buccal mucosa, which had preceded the attack in all of the cases.

This supposition was strengthened by the fact that the affection was confined almost exclusively to the lower lip, which comes in closer and more extensive contact with the buccal fluids, especially if the secretions are increased, than the upper lip. Syphilis, or even anti-syphilitic treatment, might have given rise to the catarrhal condition in the first place.

In 1893 Purdon², of Belfast, reported a series of four cases similar to those described by Volkman.

Three of these cases were males, the other a young woman, aged 23. The age of the youngest patient was 19, and that of the oldest 27. No trace of syphilis existed in any of the four patients, and there was never present any fistulous openings, as in some of Volkman's cases. In three of the patients only the lower lip was affected, in one, the eldest, both lips. Occasionally, exacerbation of the disease occurred. The lip became swollen, with little or no pain, firm and rather hard to the touch, whilst its mobility was more or less impaired.

In one of the cases the skin covering the chin (all of the males had no hair on the chin) became erythematous, whilst the eye could distinguish the swollen mucous glands of the lip, the ducts of which were more or less dilated.

There appeared to be an active catarrhal condition of the buccal mucosa.

The disease proved very stubborn and obstinate to treatment.

² Purdon: *British Jour. of Dermatology*, 1893, p. 23.

Of the many therapeutic measures tried the application of "black wash" with glycerin, and occasionally pencilling the parts with solution of silver nitrate, gave the most relief.

At a meeting of the Dermatological Society of London, in March, 1895, Galloway³ showed a case of chronic exfoliating inflammation of the lower lip of fifteen years' standing.

The lip was somewhat swollen and protruding, and the red surface was covered with a dry, brownish epithelial crust.

On removing the crust the surface of the lip was dry and somewhat glazed, and there was a slight tendency to crack, but never to ooze or bleed. In addition to this trouble the patient suffered much from dyspepsia, indigestion and constipation. She was of a neurotic temperament, and there was present a tendency to seborrhœa of the face and scalp.

Galloway was of the opinion that the case most nearly resembled those mentioned by Besnier and Doyen⁴ as "Eczema exfoliant des levres." Pringle had drawn his attention to the cases of cheilitis glandularis apostematosa previously described by Volkmann and Purdon, but the essential feature of this disease (hypertrophy of the mucous glands and dilatation of the ducts) was lacking.

At the present time I am inclined to believe that Galloway's case was a severe one of persistent exfoliation of the lips, "Cheilitis exfoliativa," two instances of which were recently reported by Stelwagon⁵.

Bælz's disease, described by Unna,⁶ is characterized by swelling of the mucous glands of the lower lip, with resulting suppuration, ulceration and healing with the formation of cicatrices.

Jamieson's⁷ case (cited by Fordyce) was clinically somewhat similar to Galloway's, but the histological features resembled those of a mild superficial epithelioma. Fordyce⁸ considered it an example of Bælz's disease.

In addition to the original five cases described by Volkmann, and the four reported by Purdon, I desire to place on record a tenth example of cheilitis glandularis apostematosa, the patient being under my care at the present time.

Patient:—W. H. G., male, engineering student, aged 30, referred to me by Dr. Harmon T. Rhoades of this city.

³ Galloway: *British Jour. of Dermatology*, 1895, p. 113.

⁴ Besnier and Doyen: Kaposi (Translation of Besnier and Doyen), vol. 1, p. 665.

⁵ Stelwagon: *Jour. Cutaneous Dis.*, June, 1900, p. 268.

⁶ Unna: Bælz's Disease, *Monats. f. prak. Derm.*, B. XI, S. 317.

⁷ Jamieson: *British Medical Jour.*, Dec. 7, 1895.

⁸ Fordyce: *Jour. Cutaneous Dis.*, 1896, p. 418.

Family History:—The father, who was one of a healthy family of four, and a farmer by occupation, died of intestinal trouble, in 1893, at the age of 56. From early youth up to the time of his death he suffered from a disease of the lower lip similar to the one which now affects the son. The condition troubled him more at certain times than at others, the exacerbations being traceable to no particular cause. He was not subject to sore throat or tonsillitis but, as far back as the son can recollect, he complained of the secretion of excessive quantities of saliva. His general health was excellent up to 1864, after which time he suffered more or less from chronic dysentery (contracted while serving in the army). He was an inveterate, but not excessive, chewer and smoker of tobacco.

The mother is living and well at 70. There are six sisters, all married and with families. There was one brother, who died in infancy (summer diarrhœa).

Patient has been married three years, and has one child, a healthy, rosy girl of 16 months.

Personal History:—The patient is a native of Indiana, and a resident of Winfield, Kansas. He has never had a venereal disease of any kind. There is no history of any serious illness. He uses neither tobacco nor liquor.

Present Illness:—When he was about 8 years of age his mother first noticed that his lower lip was thicker than normal and that the mucous surface was at times covered with thick, tenacious mucus. Some two years later the dilated follicular openings could be plainly seen with the naked eye. He experienced no pain or discomfort at any time.

The upper lip and the corners of the mouth have never been involved. Abscess formation has never occurred. On one or two occasions the exudate was sufficiently copious and mucilaginous to cause the lips to adhere together at night.

Exposure to sunshine or dry winds appeared to make the condition worse. The irritation to which these factors gave rise appeared to extend to the adjoining skin also, resulting in a decided erythema, accompanied by slight itching.

There has been present a rather severe catarrhal inflammation of the pharyngeal and buccal mucosa ever since the patient can remember.

Examination:—The tonsils are normal in size, but are somewhat congested. The mucosa lining the mouth and pharynx is redder than usual and is coated with stringy mucus. No plaques, or ulcerations of any kind are to be found. The teeth are in good condition. The parotid and submaxillary glands cannot be palpated. There is no trace of adenoids.

On the buccal mucous membrane, about 2. centimeters behind and 1. centimeter below the angles of the mouth, on either side, there is an oval patch (measuring about .5x1. centimeter) of the small bodies seen in Fordyce's disease. They are yellowish in color and without elevation.

The upper lip is apparently unaffected.

The lower lip is considerably thickened, and much stiffer and less mobile than normal. The enlarged mucous glands can be felt, like tiny bags of shot, from the inner surface.

The lip is somewhat everted, as if the patient were pouting, and the mucous membrane covering the posterior part of the edge is slightly puffed up. This entire surface, commencing just below the angle on either side, is dotted with the widely gaping mouths of the dilated mucous follicles. There are thirty-two in all, some larger than others, the smaller just discernible to the naked eye, the dozen or more larger ones readily admitting the rounded end of an ordinary silver probe to the depth of about half a centimeter. There is a surprising lack of sensitiveness on manipulation. The outer border of the lip and the skin on the anterior surface (which is almost devoid of hair) are a trifle erythematous, but there is no itching or other subjective symptom.

When the lip is squeezed between the finger and thumb the contents of the hypertrophied glands are expressed and the viscid mucus appears at the mouths of the follicles as shiny, pin-head sized droplets.

Thus far, permission to do a biopsy has been firmly and absolutely refused.

Treatment:—The X-rays apparently constitute an ideal therapeutic measure in this case. Up to the present time the lip has received six exposures of four minutes each, at bi-weekly intervals, a soft tube (at 15 centimeters distance) and a very small amount of current being used. I expect to ultimately obtain the requisite amount of atrophy without exciting any perceptible amount of irritation.

Considerable improvement has already resulted. The flow of mucus is not nearly so great as formerly—the patient says there is less than there has been for years, and some constriction of the follicular openings is noticeable. The glands are not much, if any, smaller, however, and feel as prominent and shotty as at first.

Attempts to locate the underlying cause of the bucco-pharyngeal catarrh have as yet met with no success.

I hope to embody the final results and conclusions in a later paper.



FIG. 1.



FIG. 2.

THE TREATMENT OF VERRUCAE PLANTARES

R. L. SUTTON, M. D., Kansas City, Mo.

PLANTAR warts, first accurately described by Dubreuilh¹, in 1895, and, more recently, carefully studied by Bowen², are extremely resistant to ordinary therapeutic measures. Of the various modes of treatment heretofore recommended only two, excision and the use of the actual cautery, give any considerable degree of satisfaction. Practically all of these cases are seen in private practice and the patient's objections to such radical procedures are usually so decided as to preclude their employment.

Recently, I have been freezing these lesions with Pusey's³ carbon dioxid snow, and the results secured are excellent. A pencil of the substance, a trifle greater in diameter than the depression, or "well," in the growth to be treated, is applied to the center of the wart for a period of from thirty to sixty seconds, considerable pressure being exerted. The tissues are then allowed to thaw, and a second application, of thirty seconds duration, is made, a slightly smaller stick being used. A more complete destruction is secured, as Heidingsfeld⁴ has pointed out, by two short, consecutive applications than by a single prolonged one.

The use of a simple dusting powder, as boric acid, is all the after treatment required.

While I have employed the method in only four cases the lesions have been of such character and the results so uniformly good that I believe it should be given a trial in every instance.

In one of my cases there were seven of the growths, varying in size from 1.x1. to 2.x3. centimeters. The larger ones had been curetted, burned with nitric acid, and treated with salicylic acid and chrysarobin at various times, all without appreciable benefit. Thorough freezing, by means of the snow, brought about a complete cure within a period of twenty days, the patient, a girl of 14, meantime continuing her work in school.

The operation gives rise to very little pain and no anaesthetic is needed.

¹ *Annales de Dermatologie et de Syphilographie*, t. 6, 1895.

² *Boston Medical and Surgical Journal*, 1907, CLVII, p. 781.

³ *Transactions Cutaneous Section of American Medical Assn.*, 1907, p. 133.

⁴ *Ohio State Medical Journal*, August, 1908.

BLASTOMYCOSIS CUTIS: REPORT OF TWO CASES, ONE BECOMING SYSTEMIC, WITH FATAL TERMINATION.

BY EDWIN H. SHIELDS, M. D.,

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Cincinnati, O.

IT is not often that one has the opportunity to observe two authentic cases of blastomycosis during a year, especially if one does not reside in California or Illinois, but such was my privilege. Of twenty-two cases, reported by Dr. Frank Hugh Montgomery and Dr. Oliver S. Ormsby, of Chicago, their residences were as follows: Chicago, thirteen; Iowa, two; Indiana, Wisconsin, Ohio, Maryland, New York City, Germany and France, one each. The lesions in my two cases were typical. The disease in the first case became systemic and had a fatal ending, after being under my care for six months. As to the condition of the second case, I cannot answer, for I only saw the patient once and could not convince him of the gravity of this disease. The patient was using some medicine prescribed by a neighboring farmer.

Case 1. Mr. H., age forty-five years, married, a native of the United States, living in the State of Ohio all his life, consulted me at the clinic of the Miami Medical College, in November, 1907. The history of his case is as follows: In 1904 a boil developed on his right cheek; he opened it with a needle and then applied a poultice; it never healed; a year later a boil appeared on the left cheek, which he treated in the same manner as the former boil; it also never healed. These boils left hard, indurated patches, which gradually increased in size. A short time after the appearance of the last boil, he noticed a pimple on his left arm, forearm; and right thigh; these lesions were painless. A few weeks later, a large pimple appeared on his right buttock; this pimple gradually developed into a large painful boil, which discharged very freely and would not heal. During the last six months, this boil broke down, leaving a large ulcerating surface.

Status Praesens.—Patient very weak and anæmic. Heart, lungs and kidneys were found to be normal. On both cheeks there is

a large, red, irregular, uneven and raised lesion about two inches in diameter; the center being somewhat depressed, the margins were very prominent. In the beginning the papillomatous excrescences were not marked, not more than a dozen being present, but four months later the entire lesion was one fungating mass. During the early period of the disease, there were several small abscesses covered with yellow crusts. The lesions on the arm, forearm and thigh each measured $1 \times \frac{3}{4}$ inch, and consisted of a dark red, elevated patch, covered more or less with scales; the margins were raised and indurated; no abscesses or warty growth present. The lesion on the buttock consisted of a large papillomatous, foul smelling mass, measuring 3×5 inches; the papillæ were so dense that it was impossible to see the base from which they sprang. The lesion was so painful that the patient could barely sit down and walking caused pain.

My first impression, after examining the lesion on the cheeks, was that this was a case of syphilis, but after seeing the large cauliflower mass on the buttock, I hesitated in my diagnosis, and the question of syphilis vegetans and carcinoma arose. I ordered the patient to the hospital and asked the pathologist to examine an excised piece. He reported nothing malignant. I ordered mercury locally and a saturated solution of K. I. The large lesion was thoroughly curetted, and owing to the great vascularity, the cautery was necessary to stop the hæmorrhage. The wound failed to granulate, it increased in size and in three weeks, was again filled with a cauliflower like growth, in spite of the large doses of K. I. After a stay of several weeks in the hospital, the patient returned to his home and then made weekly visits to my office. The disease was progressing very rapidly, going from bad to worse, and in February, 1908, the disease extended to and into the rectum. Patient lost 50 pounds in weight and was barely able to visit me.

Pulse small and rapid, temperature 102, heart and lungs normal, some albumen, no sugar. Ever since the rectum became involved, diarrhœa was a prominent symptom. It was at this stage of the disease that the patient passed out of my hands, because he lived too far away to come to me, or for me to go to him. He died in June, 1908.

I am frank enough to admit, that, when the patient was in the hospital I did not make a diagnosis of blastomycosis, for two reasons:—firstly, this was the first case I had seen and owing to the rarity of the disease, it did not suggest itself to me, as only a few

months previously I had treated a case of syphilis vegetans, which somewhat resembled this case, furthermore, a colleague saw the case and diagnosed it as syphilis; secondly, I failed to ask the pathologist to look for the blastomycetes. After the patient left the hospital, I began to study my case more carefully; I wanted to know why this disease acted as it did, in spite of the treatment. I made sections, looked for the tubercle bacillus and the blastomycetes in the pus, and was gratified to find the latter, thereby confirming a diagnosis. Fortunately owing to the treatment instituted, the patient did not suffer from my negligence. I am sorry that I did not get a picture of this case, but if you will study the picture of the second case, you will get a good conception of the case in question.

Case 2.—Mr. T., aged 53, a resident of an adjoining town, consulted me October 20, 1908. The following is his history: In December, 1907, he had a carbuncle on his back; he applied poultices and it opened, discharging a large quantity of pus. The "carbuncle" never healed. A month later a red spot made its appearance on the right cheek and continued to enlarge and soon became warty; a little later a warty growth made its appearance on the tip of the nose, and in a short time it extended to the upper lip. A glance at the two photographs will give you a good idea as to the surface involved.

On examination of the "unhealed carbuncle," I found a dusky red patch, 3 inches long by $1\frac{1}{2}$ inches in width, with sharply defined elevated margins, studded with small papules and a few small abscesses covered with yellowish crusts. Inasmuch as the pictures are so clear, I shall not go into details of the eruption. A drop of pus taken from the back showed the characteristic blastomycetes.



FIG. 1.



FIG. 2.

SOCIETY TRANSACTIONS.

THE NEW YORK DERMATOLOGICAL SOCIETY.

362d Regular Meeting, December 15, 1908.

Case for Diagnosis. Presented by DR. PIFFARD.

The patient, a woman, had a number of lesions on her shoulders and chest, which commenced like an ordinary common red mole. About eight years ago they began to change their appearance, and five years ago they began to spread and increase in size flatwise. When Dr. Piffard first saw the case there were two lesions on the chest, which he took to be psoriasis. He gave the patient chrysarobin, but it did not produce the proper reaction. To one of the lesions he had made three applications of the X-ray.

DR. DADE thought it a case of epithelioma.

DR. FORDYCE said it was a case of multiple epitheliomata of a rather unusual type. These multiple superficial flat epitheliomata develop not infrequently on a seborrhoeic base and in some cases simulate very closely syphilitic lesions. He had at present under his care a man who had been treated by very excellent practitioners for a luetic infection. Clinically the lesions were dark red in color, had a miniature rolled edge, polycyclic outlines and presented a condition very like that met with in Paget's disease. These lesions yield readily to X-ray treatment.

DR. JACKSON said that it seemed to be epitheliomatous, especially the lesions on the chest. It was a very unusual type of that disease.

DR. FOX said that in his collection of photographs he had a picture of lupus erythematosus of the chest which looks very much like this case, and one of epithelioma of the chest which also bears a strong resemblance to it. Showing that either disease might occur in this locality.

DR. WHITEHOUSE regarded it as a case of superficial disseminate epithelioma of a rather benign type, and thought that a mild treatment would control it.

DR. PIFFARD said that he sent one of the lesions to Dr. Sondern for examination, and a section had been returned to him labeled "Basal Cell Epithelioma," but he was not inclined to regard it as so benign as some of the members seemed to think it. Sections from the tumor show some of the small cells, which have originated from the basilar layer; the whole mass is well encapsulated by fibrous tissue, and there is marked atrophy of the superficial epithelium. The tumor belongs to the basal celled epithelioma, which is not usually a very malignant growth. He, himself, had examined it later, and could not make out any connection with the sebaceous glands.

Case of Elephantiasis. Presented by DR. TRIMBLE.

The patient was a woman, aged thirty-six. The condition had existed for ten years, she having first noticed an enlargement in the calf of the right leg when twenty-seven years old. At present the disease extends from the ankle to the middle of the thigh on the right side. The left leg was also swollen slightly. The surface has been smooth

and unbroken up to this past summer, when the patient had an acute illness of some kind, which kept her in bed for a period of two months. During this time several small abscesses developed in the leg, which were painful and had to be incised. The opening of one of these still exists. The case was presented as a typical one of elephantiasis in a patient who has always lived in New York and vicinity.

Hill, of Alabama, in dealing with a number of cases of lymph scrotum, thought that some cases were probably related to syphilis. This statement was later endorsed by Ravogli, of Cincinnati. Upon the strength of this, the patient had been put through a short course of mercurial injections with the iodides administered internally, with no beneficial result. This was evidently the true type, with no relation to syphilis.

Case for Diagnosis. Presented by DR. TRIMBLE.

The patient was a man, aged forty-seven, with a peculiar lesion of the glans penis. Immediately surrounding the meatus, in area about the size of a ten cent piece, was a moist looking patch with absolutely no infiltration. The lesion showed no signs of inflammation, with the exception of a very slight œdema of the lips of the meatus. It was painless and caused no inconvenience. The remaining part of the glans was dry and had the characteristic bluish color. It seemed in the area affected, as if the epithelium had been merely peeled off. The lesion was of six months duration, and a suspicious intercourse had been indulged in one month prior to its appearance. Absolutely no secondaries of any kind had followed.

DR. KEYES said that it did not look like a primary lesion, though he hesitated to make a diagnosis. It might be an epithelial degeneration of some sort.

DR. FOX said that he has had under his care for 18 months a man with red circumscribed moist patches on the glans and prepuce, which was slightly adherent; the patches have at times, become papillomatous. He feared for a while that they were of a malignant nature but under repeated cauterization they flattened down and healed. After the skin was almost well they would often become red and moist again. It seemed to be a case of the same nature as the one just shown, although the patches were much redder in appearance.

DR. MORROW said that the only reason he would not pronounce this an initial lesion was on account of the absence of confirmatory symptoms. So far as the objective appearance goes, it presents a remarkable similitude to a case which he described some years ago under the title of "Diphtheroid of the glans penis." For a while the diagnosis was in doubt on account of the extraordinarily delayed appearance of secondary manifestations. The surface of the lesion, after the grayish coating had cleared off, presented exactly the same glistening appearance seen in the present case. The diagnosis was delayed for four or five months, when the appearance of a secondary eruption removed all doubt as to its nature. The lesion persisted for several months before it entirely cleared up. The present case suggests very much the same condition, though he would not care to definitely pronounce upon its actual character.

DR. FORDYCE said that its persistence for six months would suggest some form of epithelial degeneration—somewhat like the early stage of Paget's disease of the nipple. One should keep such a possibility in mind.

DR. WHITEHOUSE said that if such a lesion were seen on the nipple lasting

for such a length of time, one would not hesitate to call it Paget's disease. He saw nothing specific about it, but was inclined to consider it epithelioma, similar to Paget's disease, as suggested by Dr. Fordyce.

DR. TRIMBLE said that he had not thought the case "specific" in nature, but was somewhat suspicious of epithelial degeneration, and brought the case here to obtain other opinions.

Two Cases of Scleroderma. Presented by DR. JACKSON.

The children were not related. The oldest, a child of six, had had the lesion since she was four; the other, a child of two and a half years, had had it for six months. There was a specific history of the first case. The other one had been treated with salicylic acid in oil, and was getting very much better. In the child who had had it for six months, the whole area involved was affected at the same time. The mother of the older child had had several miscarriages, and the child herself has a rather syphilitic expression of the face, with prominent frontal bones, and flattened bridge to the nose. He presented the cases not because of any peculiarity in their clinical features, but because of the early ages of the subjects.

DR. PIFFARD said that he saw only the younger child, and there was no question as to the nature of the disease. He would call it a case of true scleroderma, and would recommend the use of the galvanic current on it, and possibly thio-sinamin—preferably the fibrolysin preparation. He had used this on a case of false keloid by cataphoresis with very satisfactory results. Years ago he reported the case of an old woman 60 years of age whom he had treated for scleroderma. It commenced at the ankle and ran up the leg; the lower part got some life in it, but the upper part disappeared. The same night he showed another case of generalized acute sclerosis in which the upper part of the trunk was involved, and which got well in time spontaneously.

Case for Diagnosis: Tumor on the Tip of the Nose. Presented by DR. FOX.

The patient, a young girl, had a peculiar congenital tumor on the tip of the nose. It was operated upon once or twice when she was a baby. The mother says that every winter the girl has frequent attacks of swelling of the tumor, complicated with headaches. It is slightly lobulated, as can be seen, but it is difficult to determine its exact nature. An electric needle was run through it, and has somewhat lessened its size. It has a very slight reddish or bluish tint.

DR. FORDYCE said that it was some kind of naevus, but what kind he did not know.

DR. JACKSON said that it had the appearance, excepting in color, and the feel of a cavernous naevus, and being congenital it probably was one.

DR. FOX said that he regarded it as a vascular cavernous naevus, but was surprised that it had so little bluish or reddish tint, and the periodical occurrence of the swelling, redness, and general malaise seemed to be peculiar. He did not feel prepared to say whether or not there was any connection.

Case for Diagnosis (Lesion of the Tongue). Presented by DR. SCHWARTZ.

The patient, a woman, was seen to-day for the first time. The

general condition of the tongue, which has existed for three months, is just the same as when it first appeared. There are no symptoms excepting burning and pricking sensations when eating hot or spicy food. The patient gives no history of any specific trouble, and has always been in good health—apart from a chronic indigestion from which she suffered for three years. Now her tongue seems to have grown somewhat, and she says that it feels larger than it did before.

DR. KEYES thought it seemed to be a leukoplakia, and not specific. He had a similar case that lasted for years and finally got well. The two cases looked very much alike.

DR. MORROW said that the appearances were not unlike those seen in syphilitic leukoplakia and asked whether Dr. Schwartz had eliminated all specific history, and upon receiving a reply in the affirmative, said that it was comparatively rare to see a case of leukoplakia in a woman, for it is almost always the result of the combined action of tobacco and syphilis. Once he had seen a woman with similar conditions, and she acknowledged that she was a confirmed cigarette fiend, and had used tobacco for a long time. The appearance of this case is like the beginning stage of leukoplakia, and the white superficial patches will probably be more pronounced later.

DR. SCHWARTZ replied that they evidently had some definite idea that the condition was specific, for they asked if it was possible to get such a condition from drinking vessels. Apparently there was no specific history and no history of smoking. When Dr. Johnston saw her in the Cornell clinic there did not seem to be any doubt of the presence of leukoplakia, but there also seemed to be another condition present of a different character. The woman has a very poor digestion and has had a number of attacks of indigestion during the past three years and her tongue seems to be increasing in size. From time to time also it is very painful. The possibility of the condition being a lymphangiectasis resulting from chronic interstitial glossitis was suggested.

DR. FORDYCE said it was impossible to make a positive diagnosis after a single observation. He would hesitate to make a diagnosis of leukoplakia in a woman who was not a smoker unless some other form of chronic irritation could be determined. He would rather think of a lichen planus beginning in the mouth.

DR. TRIMBLE said that seeing the case for the first time he would be inclined to consider it a leukoplakia of non-specific type.

DR. WHITEHOUSE said it appeared to be a leuko-keratosis of some kind. That on the cheeks along the line of the teeth, was very much like an ordinary leukoplakia of the specific type.

In regard to the appearance of leukoplakia in women, he has under observation at present a case very similar to this in a woman 60 years of age who is not a smoker, but has late syphilis. Such cases are occasionally seen, although they are rare. The suggestion of lichen planus should be followed up most carefully. The woman's husband is most anxious to know whether it is specific or not; indeed, he seemed suspiciously anxious.

Case of Lupus Vulgaris. Presented by Dr. Fox.

This patient from the Skin and Cancer Hospital was presented by Dr. Howard Fox before the New York Academy of Medicine, Section on Dermatology, November 10, 1908. Some of the members there whose opinion carries weight regarded it as a case of syphilis. She has had four calomel injections, with very little, if any, result. The patch on the arm has been treated by chrysarobin ointment covered with rubber

cloth and it has flattened down very much within the past week, but the eruption on the face is very characteristic.

DR. MORROW said that it did not seem impossible that in this case there might be a combination of syphilis and lupus vulgaris, for the lesion on the face, especially the lower border of it, is very characteristic of lupus vulgaris; also the nibbled and atrophic condition of the alae of the nose is very characteristic of lupus. Certainly the lesion on the face and neck does not suggest syphilis, and the lesions on the limbs do not suggest lupus vulgaris. It therefore seems probable that there is a combination.

DR. FORDYCE said we might conceive of a combination of lupus vulgaris and syphilis, the one disease present on the face, the other leading to scars on the extremities. He was rather inclined to believe, however, that all the lesions were the result of one infection. As to the Wasserman test, while it was of great use in early syphilis, in the late manifestations of the disease we could not attach so much importance to it. The positive reaction of the von Pirquet test was of some value, but not absolutely demonstrative, as the patient might have visceral tuberculosis. He believed the only way to make the diagnosis positive would be by inoculating guinea-pigs.

DR. FORDYCE said the Wasserman test had been of great aid to him in the diagnosis of certain doubtful eruptions where early syphilis was suspected. A positive reaction in the florid stage of the disease always meant a syphilitic infection, while a negative reaction in an uncertain case would lead to the opinion that some other eruption was present. In late syphilis its value as a diagnostic measure was not so great. In his opinion faith in the diagnostic worth of the Wasserman in early syphilis was increasing.

DR. KEYES said that the lesions on the leg appeared to be syphilitic, those on the face and neck less so—indeed, the latter did not seem to be at all specific.

DR. TRIMBLE said that he had seen the case a good many times, and was under the impression that it was tuberculosis of the skin; and although the new tests might not be absolute, the negative Wasserman and the positive von Pirquet would point to lupus, although some of the characteristic clinical features are absent. There were no apple jelly nodules, and no fibrous scarring. He had seen several cases of tuberculosis verrucosa cutis where the lesions were like those on this woman's arm, and the face lesions might be of type lupus vulgaris. He agreed with the diagnosis of skin tuberculosis.

DR. KLOTZ thought that the test with tuberculin might be of more value.

DR. HOLDER said he understood that the patient was under active mercurial treatment at present, and that the flattened down condition of the lesions on the arm might be attributed to the mercury as well as to the chrysarobin.

DR. TRIMBLE replied that the lesions had not flattened down until local treatment was applied. He had tried the tuberculin test, and it gave a very beautiful reaction.

DR. WHITEHOUSE said that the bulk of the evidence seemed to point to its being a case of tuberculosis, and the previous history of caseous cervical glands would seem to favor that diagnosis. The symmetrical distribution of the eruption with lesions on both sides of the body would point rather to tuberculosis than to syphilis, in spite of their disappearing so quickly on the legs. Some cases of lupus vulgaris that come from the other side with lesions on the extremities not uncommonly clear up promptly, though they seem particularly resistant when situated on the face. The character of this case has changed in the last few weeks; since the crusts have been removed, it looks less like a tuberculosis syphilide and more like lupus vulgaris. It would probably prove to be a pure case of lupus.

DR. FOX agreed with Dr. Whitehouse. When he first saw the case it was covered with crusts and seemed to be a plain syphilitic eruption, but continued

study has convinced him that it is lupus vulgaris. The negative Wasserman test proves nothing, but if the von Pirquet test is worth anything at all, it would show that it is of a tuberculous nature. It is unfair to base the diagnosis on the condition of the legs. The scars on the legs are not characteristic of anything. Some cases of extensive lupus will occasionally get well themselves in a very short time. As Dr. Trimble had suggested, the lesions on the arm might be another form of tuberculosis—tuberculosis verrucosa cutis. It had not yielded in any appreciable degree to the mercury treatment. Having tried that for some time, he now intended to put the patient under iodide of potassium, and if that does not produce improvement he would be fully convinced that it was not syphilitic.

DR. MORROW said that he had at least one case of lupus vulgaris in which there was a very marked improvement following the use of calomel injections. He would not say that it was a direct consequence, but it certainly was a coincidence that the same treatment that was pursued before gave no such results as after the injections. In his case there was no possible doubt in the diagnosis. He saw no contra-indication to continuing the specific treatment.

DR. PIFFARD said that the question seemed very much like "the voice of Jacob and the hands of Esau." He could see no good ground for making a distinction between lupus or tuberculosis verrucosa cutis. The point is whether it is a tuberculide or a syphilide. It looks like a syphilide and behaves like a tuberculide. He would like to know whether sections had been made and T. B. looked for.

Case of Lupus Erythematosus. Presented by DR. WHITEHOUSE.

This patient was presented before the Society at the April meeting by Dr. Fordyce, with a diagnosis of lupus erythematosus of the nodular type, and the history was published in the September number of THE JOURNAL OF CUTANEOUS DISEASES. The case has spread since then, and has become of the "bat-wing" character. The Calmette test was negative on three occasions. The peculiarity of the case lies in the purplish-red nodular lesions on the head and face, chest and back, leaving in places scars like a tuberculide. It has been treated by some one with the X-ray, and the patient says the crusts on the face lesions have developed since then. Recently patches of the disease have developed on the scalp, and she has now a patch on the mucous surface of the lower lip which she did not have when first presented. She has been married for five years, and her husband has a cough. His mother died of tuberculosis, and she thinks he also has that disease.

DR. PIFFARD said that it looked more like syphilis than lupus erythematosus, in spite of the "butterfly."

DR. FORDYCE said he was interested to note the development of this case since he had shown it last spring. The flush area was now involved, giving rise to a typical butterfly appearance. He could not see any possible reason for considering it to be other than a lupus erythematosus.

DR. WHITEHOUSE said that he had presented the case because he thought the members would be interested to see its progress, which has been very rapid since Dr. Fordyce showed it in April, at which time the butterfly appearance across the nose was not present. The patient had only just entered the Skin and Cancer Hospital and has not yet had any treatment. Dr. Fordyce had given her iodoform, with an intense reaction. He himself had had a similar case some years ago, which recovered under iodoform internally. That case had lesions on the

back and chest, also on the arms; the remedy in this case produced at first a very active reaction. He was inclined to give it a further trial in this patient.

Eczema or Pompholyx. Presented by DR. FORDYCE.

The patient, a boy of seven, had an eruption of the palms and dorsal surfaces of the hands extending up the forearms and on the soles of his feet. It consisted of large eroded areas, bullæ and pustules. He had had a similar attack of the trouble four years before. The lesions apparently began as deep-seated vesicles or bullæ on the palms and soles and from there extended to the other regions. There was no history of the affection having spread to other members of the family. The case was presented for diagnosis and for a discussion as to the relationship of pompholyx and eczema.

DR. KLOTZ said that the lesions did not seem deep enough for pompholyx, which usually shows deep holes on the palmar surface. Farther upwards the lesions appeared as superficial as those of *Impetigo contagiosa*.

DR. TRIMBLE said that he saw the patient the first time he came to the clinic, and the appearance of the lesions corresponded to the description of pompholyx given in the text books. He would like to know whether the members of the society made any distinction between pompholyx and eczema.

DR. JACKSON said that in some of the recent English books what we call pompholyx is described as eczema of the hands, the word pompholyx being placed in brackets. This case does not seem to be a true eczema at all. It looks as though there were some infectious element present. It might have begun as pompholyx.

DR. PIFFARD said that it certainly was not the pompholyx of the old writers, although it might pass for cheiro pompholyx of the more recent writers—also called dysidrosis. He thought this case was of internal origin, and would treat it with arsenic.

DR. WHITEHOUSE said that it was difficult to make a diagnosis on a casual examination, but it struck him as a pretty definite type of bullous impetigo contagiosa, which is seen from time to time. Dr. Elliot had depicted such a case occurring around the genitals and on the abdomen. There is also at present at the Skin and Cancer Hospital a case of precisely the same character, on the inner side of the thighs and genitals, and on the sole and instep, which has cleared up almost entirely under white precipitate ointment. The lesions are very superficial, the bullae develop in groups and the disease spreads by peripheral extension. Because of these characteristics he would not hesitate to call it bullous impetigo contagiosa, and he thought white precipitate ointment would cure it.

DR. FORDYCE said that we sometimes see cases with deep-seated lesions between the fingers and on the palms which rupture with difficulty and which recur from time to time. These cases apparently belong to a distinct type and we may be justified in giving them a distinct name as pompholyx. In other cases the lesions begin in a similar way and extend to the forearms and produce an eruption not distinguishable from eczema. This case, he thought, belonged to the latter group and had apparently extended by secondary infection of new areas, if it was not primarily a case of impetigo.

Circumscribed Eczema of Left Breast. Presented by DR. FOX.

DR. FOX said that the patient, a girl of sixteen, had this circumscribed condition on the left breast, which some might call Paget's disease, but which he regarded at the present time as a simple case of eczema. The nipple is depressed from the inflammatory swelling. The

original patch developed above the nipple. There are no swollen glands in the axilla.

DR. FORDYCE said that it was now generally admitted that eczema has a variety of causes which may be both external or internal. It was also generally admitted that parasitic infection often became engrafted on an eczematous surface producing a condition known as impetiginous eczema. He had in his service in the City Hospital many cases in lodging house inmates and others who paid little attention to cleanliness generalized forms of eczematoid dermatitis which he believed to be produced by pus organisms or their chemical products. Some of these had their origin in old leg ulcers or other chronic skin lesions.

Replying to Dr. Piffard's inquiry as to whether any one believes that there is a specific parasite which produces eczema, Dr. Fordyce answered No.

DR. WHITEHOUSE said that probably all agreed that there are eczemas of metabolic or internal origin, and others which are kept up by secondary local infections, whatever we may choose to call them. That does not mean that we believe there is a specific organism, for no specific bacterium has been isolated. He would call this an eczema of that type, whatever adjective was applied to it—one that was spread by contiguity, by infection.

DR. FOSTER inquired whether Dr. Piffard would not admit that there was an eczema produced by the acarus. While we might say that such an eczema was parasitic, we should not attribute it to any specific action of the parasite.

DR. PIFFARD replied that a great many do.

DR. FOX said that you can have excoriations resulting from acari, but not an eczema unless the eczematous tendency is there. A syphilitic lesion may follow an injury to the skin, but not unless syphilis is present.

DR. FOSTER supposed then that Dr. Fox would call the diathetic condition the predisposing cause, and the parasite the exciting cause.

Woman with Lesion of the Face. Presented for Diagnosis, by Dr. Fox.

DR. FOX said that he saw the patient to-day at the Skin and Cancer Hospital. She has a number of lesions on the face, and she is presented to-night on account of the different diagnoses which had been made of the condition, some calling it xanthoma, others adenoma sebaceum, benign cystic epithelioma, etc. The lesions seemed to him to be ordinary hypertrophied sebaceous follicles, which often occur on the face. There is a very characteristic one on the nose.

DR. FORDYCE said that the lesions were connected with the sebaceous glands and were probably sebaceous adenomata.

DR. FORDYCE said that they do not generally have the control punctum which these have.

DR. FOX said that the lesion struck him as being a very common one and of no significance. He had shown it to-night simply for confirmation of the fact that it was not xanthoma or benign cystic epithelioma. In reference to the case of lupus he said that he has had one or two cases of psoriasis where chrysarobin in any strength had no effect. In one hospital case which has been his bete noir for a year or more, he has been unable to remove some patches from the legs of a girl, although he has used chrysarobin in different forms, nitrate of silver, etc., but nothing had any effect until a week ago, when he applied 20 per cent. chrysarobin on a vulcanized rubber cloth and bandaged it over the patches, with most marked improvement. Since then it has been used on the back in the same way and with the same result. He was much surprised at the improvement in the patch of lupus (or syphilis) on the arm of the colored woman shown to-

night, which in a week's time flattened down more than under calomel injections or anything else which had been tried. This method of using chrysarobin may be of service in many cases of chronic eczema or psoriasis where the ordinary ointment fails to accomplish the result desired.

Dr. MORROW said that in many of these cases they had been in the habit of applying powder, and putting collodion or some preparation of that kind over it to keep it in place, and a great deal of irritation resulted.

Dr. FOX replied that he recommended the chrysarobin-collodion varnish years ago, but it was not as effective as the ointment. The ointment is vile stuff, but if repeatedly applied it will probably produce the desired effect, although some patients are not at all effected by it. The rubber cloth appears to enforce its action.

THE PHILADELPHIA DERMATOLOGICAL SOCIETY.

The regular monthly meeting of the Philadelphia Dermatological Society was held at the Polyclinic Hospital, on Monday evening, December 14, 1908, at 8:30 o'clock. Dr. M. B. Hartzell presiding.

Gumma of the Lip, A Case of. Presented by DR. STELWAGON.

The patient was a male of twenty-four years. He had originally gone to a well-known hospital where excision of the lesion had been advised. The lesion first appeared nine months ago on the left side of the lower lip, on the vermilion border and also on the cutaneous surface; it was the size of a dime, raised, and in the beginning somewhat fluctuating. At the advice of the hospital authorities, two weeks after the appearance of the lesion, it was excised. Before the wound had an opportunity to heal, ulceration occurred about the stitches, leaving an open ulcer. Shortly afterwards the condition remaining practically without improvement, the patient went to another hospital, where Dr. Stelwagon had an opportunity of correctly diagnosing the disease. The patient was placed on mixed treatment and in a few weeks the lesion had healed. At the present time there is a scar, on the site mentioned, one-half-dollar in size; other scars are present on the lower legs. The patient gives a history of an initial lesion three years ago.

Dr. Stelwagon said the case was presented as an object lesson, showing how frequently the lesions of the skin are improperly diagnosed. He thought a series of this type of cases should be exhibited before certain medical organizations, to prove the importance of the help of the dermatologist in the diagnoses of cutaneous lesions.

A Case for Diagnosis. Presented by DR. STELWAGON.

The patient presented was a well-built, healthy male, of nineteen years, he had first noticed the appearance of the present eruption three years ago; the outbreak starting on the inner surface of the upper arms. The disease had been progressive, until at present the inner surface of the arms, particularly the right, the lower back, the buttocks, the upper legs, particularly the inner surface of the thighs, the chest, and the abdomen were attacked. There is very slight involvement of the fore-

arms, and the lower legs below the knee are free. There seems to be two distinct processes going on, as represented by entirely different types of lesions. The majority of the eruption consists of annular lesions with clear centres, the rings are from dime to one-half-dollar in size, they are of a reddish to a violet color, the lesions making up the circumference of the ring consist of pinhead-sized, superficial, slightly sealy papules. These rings are grouped, forming grotesque festooned and gyrate figures; the lesions are distributed somewhat symmetrically. There is a diffuse redness of the skin between the papules, probably where other lesions are even with the skin surface. The skin in the centre of some of these patches is atrophic, wrinkled like "old age skin." Some of the papules are shiny and resemble those found in lichen planus. The other type of eruption consists of vesicles, small bullæ, and vesico-pustules, which are discrete with no tendency to confluence; there are very few of this type present, but pea-sized scars of former lesions are noted on the buttocks and the lower portion of the trunk. There seems to have been an ulcerative tendency in this latter type of lesions. The mucous membranes have not been involved. The subjective symptoms are mild, slight pruritus being present. Some of the lesions have undergone involution.

DR. STELWAGON said he thought some of the lesions resembled a very superficial type of tuberculosis, while others suggested lichen planus.

DR. SCHAMBERG suggested the possibility of syphilis.

DR. HARTZELL said he thought the grouping of some of the lesions resembled syphilis, but probably the case should be classed under lichen planus annularis.

DR. DAVIS said he thought the case resembled the one that he and Dr. Hartzell had seen some years ago, in which there was a retiform arrangement of the lesions.

All those present, however, agreed that the classification could not be determined until a biopsy had been made.

Keratosis Palmaris et Plantaris, A Case of. Presented by Dr. DAVIS.

The patient was a boy twelve years of age, and according to the history had the condition since birth. The horny thickening had been progressive; the thickening of the horny layer however was apparently greater during the Winter months. The soles of both feet were involved, and there was a patch on the right hand, occupying about one-half of the palm and extending upon the middle finger. Two-thirds of the plantar surface of the right foot, and almost as large an area on the sole of the left foot were attacked; there was marked horny thickening, yellowish-amber in color, a rough almost papillomatous surface, with only superficial fissuring; no inflammatory areolar around the patches and the adjacent epidermis was normal with the natural lines unaltered. The patient had small fissures and a slight papillary hypertrophy at both angles of the mouth, with a whitish film of epithelial covering. Because of the marked thickening and the roughness of the soles of the feet, walking was both difficult and painful. There was marked hyperidrosis and bromidrosis present.

DR. DAVIS said he thought the case resembled the one presented by Dr. Schamberg at a recent meeting. He also referred to the fact that the keratosis was most marked on the points of pressure.

DR. HARTZELL said that he had previously had an opportunity of seeing the case. He also said he thought the relationship between hyperidrosis and hyperkeratosis should be investigated.

DR. STELWAGON suggested that the corrective arch of Hardaway might prove of benefit for the patient in walking.

DR. KNOWLES showed a photograph of the case, which demonstrated the improvement that had resulted from the application of strong salicylic acid plaster.

Precocious Tertiary Syphilis, A Case of. Presented by DR. STELWAGON.

The patient was a woman of twenty years, and until six months ago she had an unusually white skin, free from blemishes. Last March the patient gave birth to a healthy infant, which is still in the best possible condition; five weeks afterwards an initial lesion appeared on the genitalia. At the present time there are about twenty reddish scars from dime to one-quarter-dollar in size, on the forehead, the cheeks, the chin, the neck, the shoulders, the chest, and the upper arms. At the time the patient first appeared for treatment the lesions were of a typical tubercular type. The skin being unusually clear only accentuates the red scars. These lesions appeared supposedly one month after the initial lesion.

Tubercular Syphiloderm, An Extensive Case of. Presented by DR. KNOWLES.

The patient was a male of forty-three years, born in Germany. Eight months ago the present lesion appeared in the lumbar region, it progressed rapidly until at present it is fully eighteen inches wide by twelve inches long, it extends from just above the anal opening to almost the small of the back, and covers almost the entire width of the lower back. It has a typical raised, crusted, serpigenous border, the skin in the patch shows some atrophy, there are also fully a dozen dime-sized scars in the larger lesion. It has the appearance of a large leaf, being absolutely symmetrical. The patient some months before had been admitted to a well-known hospital for severe pain in the gluteal region, which extended down the leg, and was much worse at night. The patient showed his discharge card from this hospital, on which the authorities had written their diagnoses, "sciatica and tinea circinata."

Lymphangitis of the Lip, A Probable Case of. Presented by DR. DAVIS.

The patient presented was thirty-three years of age, the present condition started one year ago with a progressive swelling of the upper lip. At the present time the upper lip is fully twice the size of the lower, somewhat pinkish in color, œdematous in appearance but firm to the touch. The skin is smooth but all the layers seem to be thickened. There is no eruption on the cutaneous surface. According to the patient the lip is at times somewhat larger than at others.

DR. HARTZELL said he had seen several cases of enlargement of the lip in strumous individuals, chiefly children.

DR. SCHAMBERG said that he had had a case of elephantiasis of the lip, following a gummatous syphilid.

Multiple Benign Cystic Epitheliomata, A Case of. Presented by DR. SCHAMBERG.

The patient was a male of forty-eight years, he had previously been exhibited. The case was originally observed some years ago when there were only a few typical lesions on the cheeks, near the eyes. The patient was again examined after an interval of seven years, and forty lesions were found to be present, from pin-head to finger-nail size. The forehead, the cheeks, and the nose were dotted with numerous lesions, some of which had a distinct tendency to break down and to ulcerate. The lesions had been successfully removed, and skin grafting had been performed on some of the larger areas. Numerous milium-like areas were noted in the tumor. There was a milium body in the vermillion of the upper lip. Photographs were exhibited of the patient, taken several years ago, and recently. Photomicrographs were also presented, showing the histological changes.

DR. HARTZELL said he considered that the best name for this condition was "trichoepithelioma," as suggested by Jarisch. This name suggesting the proper histological origin of this growth, from the hair follicle. He also said that he thought the title benign should be dropped, because they are only relatively so, ulceration usually occurring late in the disease.

DR. SCHAMBERG said that the present case exemplified the ulcerative tendency of the disease.

DR. DAVIS said that he had had a case which tended to break down and ulcerate.

Multiple Syphilitic Gummata in a Young Girl A Case of. Presented by DR. DAVIS.

The patient was a girl of fourteen, and had had this condition for over four years. She had originally gone to a well-known hospital in the city, where the disease had been diagnosed tuberculosis of the glands of the neck; six operations had been performed, the condition relapsing a short time after each. Another operation had been advised, when she was referred to Dr. Davis. There were fully a dozen dime-sized ulcerations, on the anterior and lateral surfaces of the neck, from just above the clavicles to below the submaxillary bone, other lesions of this character were at the angles of the jaw, in the submental region, and on the lower portion of the cheeks. There was a one-half-dollar sized, punched-out, ulcer in the middle of the lower lip, which had destroyed the entire thickness of the mucous membrane in this area. A silver-dollar-sized slough also occurred, a few days after her first visit, just below the chin, leaving only a very thin layer of tissue between the external surface and the floor of the mouth. The scars of former lesions were prominently seen. The ulcerations occurred in almost every instance over the lymphatic glands. Mixed treatment

was administered, which resulted in complete healing of even the deepest ulcerations, in two months. At the present time there are no active lesions present, but fully twenty disfiguring scars will always bear record to an incorrect diagnosis and improper treatment. The teeth are notched, but are not typical. Seven children in the family died at an early age, and five are living. Dr. Davis said that he wanted to thank Dr. Walker for referring the case to him.

Paget's Disease, A Probable Case of. Presented by DR. HIRSCHLER.

The patient was a woman of fifty-two years, and the disease started some months ago, with slight scaliness just above the nipple. This condition has been slowly progressive, the slight scaliness becoming distinctly eczematous, oozing, redness, and thickening being marked. At the present time the patch surrounding the nipple is fully one and one-half inches in width, sharply circumscribed, and almost circinate. The left nipple and the skin of the breast, contrary to most cases, is involved; the nipple is thickened and slightly retracted. There was apparently no involvement of the tissues of the breast, and the axillary glands on the left side were not affected.

Dr. Hirschler said that she intended to X-ray the patient.

A Case for Diagnosis. Presented by DR. STELWAGON.

The patient was a male of sixty-five years; exceedingly neurotic, with a tremor, and a habit of talking to himself. According to his history he had had this condition for over two years; the eruption is practically limited to the face, the scalp, the back, the forearms, and the dorsal surface of the hands. The lesions are somewhat multiform, consisting of erythematous spots, pustules with an inflammatory areolar, atrophic spots, punctuate hæmorrhages, scratch marks, and excoriations. There is some tendency to pitting and slight scar formation. The patient complains of intense pruritus.

Dr. STELWAGON said that he had considered the possibility of the case being a somewhat atypical form of *acne varioliformis*.

Dr. DAVIS said he thought the eruption was probably factitious.

Dr. HARTZELL said that he had previously seen the case, and had been somewhat puzzled as to the correct diagnosis. He thought it resembled somewhat a curious form of eruption that occurred at times in broom makers, which was intensely itchy. There seemed, however, to be a factitious element in this case.

Dr. SCHAMBERG referred to certain cases in which there was a slight eruption, such as a mild acne, in which women would mutilate themselves. He said he thought this vicious habit was possessed by quite a number of individuals.

Chronic Eczema, Practically Cured by the X-Ray, A Case of.

Presented by DR. SCHAMBERG.

The patient, a male of sixty-five years, had had an almost universal eczema, of two years standing. The skin of the trunk and the extremities had been very much thickened, red, scaly, and in spots oozing. The man when previously presented to the society had, in fact, a typical general eczema, almost every type of lesion being present. At

that time almost every remedy had been tried, with but slight success. X-ray treatment was begun practically as a last resort, because of the extensive involvement. Some hundreds of exposures had been given, with the result that the entire cutaneous surface is practically normal.

DR. STELWAGON said that the Rontgen treatment had proved of decided use, in the chronic cases of eczema, with a considerable amount of thickening.

DR. STELWAGON said that the cultures and smears made from the case presented to the society for diagnosis by Dr. Stout were negative, with the exception of staphylococci being present. Some of the members present at that time considered the case as possibly an atypical example of blastomycosis.

FRANK CROZIER KNOWLES, M. D., *Reporter.*

SECTION ON DERMATOLOGY, NEW YORK ACADEMY OF MEDICINE

Stated Meeting, held Nov. 10, 1908

Dr. A. R. ROBINSON in the Chair

Naevus Pilosus. Presented by Dr. S. DANA HUBBARD.

The patient is a girl 4 years of age, from the class of Prof. Jackson at the Vanderbilt Clinic. When first shown several months ago, the birthmark on the forehead measured two by two and a quarter inches. Carbonic snow was repeatedly applied, one minute each time, with firm pressure. The case is now shown as cured, with a better result than we could expect from other methods.

DR. LAPOWSKI asked what experience Dr. Hubbard had had in treatment of naevi of the vulva and vagina. In his own experience, the inflammatory reaction had always been severe in these cases, and the result poor, as it was impossible to keep the lesion free from infection.

DR. DANA HUBBARD said that he had no experience in treating naevus of the vagina. He had treated many on the mucous membrane of the lip and mouth, however, and found that the treatment was usually followed by a rather severe and persistent inflammation, but that the ultimate result was good.

Ichthyosis. Presented by Dr. DANA HUBBARD.

The patient is a boy 4 years of age, from the class of Prof. Jackson at the Vanderbilt Clinic. He was born at seven months, and the skin at birth did not look normal, but puckered, soon peeling off. This peeling has continued from time to time, recurring every three to four weeks, the skin never being normal. There is marked pruritus, and slight general adenopathy. The case has been observed for a year, and has shown slight change in that time. Nearly every plan of treatment has been tried, and the only comfort obtained is from bran baths and rubbing with glycerine.

DR. POLLITZER said that this was a typical case of dermatitis exfoliativa, showing the general redness, the fine lamellar scaling, and the general swelling

of the lymph glands characteristic of that disease. The universal distribution and the red color both excluded xeroderma.

DR. HOLDER agreed with Dr. Pollitzer that this was a case of dermatitis exfoliativa.

DR. DANA HUBBARD, closing the discussion, said that the very early age at which the eruption appeared was in favor of a diagnosis of ichthyosis, and against one of dermatitis exfoliativa, as was also the fact that although there were intervals of improvement, the skin had never been normal since birth. He said that the general enlargement of the lymphatic glands was only what one would expect in general dermatitis, and could not be used as an argument either for or against ichthyosis, and that he had seen two other similar cases of general ichthyosis.

Xanthoma Planum Universale. Presented by Dr. LAPOWSKI.

The patient is a boy about 6 years old. The family and personal history are negative. Over the face, cheeks, trunk, buttocks, and extremities, are patches of various sizes, from a millet to a pea. The patches consist of spots of yellowish, orange or lemon color, scarcely elevated and soft. The surface of the skin overlying the yellow patches is apparently normal and free from scaliness. There was never any sign of urticaria or dermatographism, although there is slight itching, mostly at night when the child is in bed. The urine contains indican.

DR. POLLITZER said that this was a case, not of xanthoma, but of urticaria pigmentosa, with xanthelasmoid lesions such as were not infrequent in older cases of that disease. It showed many small pigmented macules, numerous papules of a bluish red color, which became turgid on friction, and a small number of lesions of xanthomatous appearance. It was a beautiful example of urticaria pigmentosa after the subsidence of the active stage.

DR. HOLDER said he had seen no classical cases of urticaria pigmentosa in this country. They were exceedingly rare, and this was a perfect example. The tumors or plaques which caused Dr. Lapowski to make the diagnosis of xanthoma, he believed to be a form of xanthoma, but they were part of the recognized features of urticaria pigmentosa.

DR. LAPOWSKI, closing the discussion, said that the lesions present in this case were certainly not the lesions left by urticaria pigmentosa, and that during his observation of the case he did not see any dermatographism, or urticaria.

Lupus Vulgaris Serpiginosus. Presented by Dr. HOWARD FOX.

The patient is 22 years old, single; a mulatto, domestic. Her father and mother both died of lung trouble. At eleven years of age the patient suffered from "lumps" in the axilla which discharged for some time. The present eruption began as a "pimple" on the upper lip seven years ago. She then noticed other lumps at the side of the neck which also broke down and discharged. The disease then began to spread over the face until now the greater part of its surface is involved. The lesions on the knee appeared four years ago. The lesion on the arm was first noticed last winter. Six months ago the eye was first affected, and three months ago the mucous membrane of the nose became involved. The general health has been good. With the exception of the upper part of the forehead the entire surface of the face and front of

the neck is involved. At the back of the right forearm is a serpigenous circinate lesion three inches in diameter. There are also serpigenous lesions on the knee and leg. There is destruction of the cartilages of the tip of the nose more or less characteristic of lupus. The left eye shows ectropion, conjunctivitis, general opacity of the cornea and two small corneal ulcers. The cutaneous tuberculin reaction (Von Pirquet's) gave a marked reaction at the end of forty-eight hours. The Wassermann and Noguchi tests were negative. A histological preparation kindly made by Dr. E. C. Jagle favored the diagnosis of lupus rather than that of syphilis, but was not conclusive. The patient has received mixed treatment for three weeks without any effect upon the lesion. It must further be said that the serum diagnosis tests (for syphilis) were made after the three weeks' treatment with mercury.

DR. LAPOWSKI said that he believed this to be a case of syphilis and not of lupus, because the development was too rapid for the latter disease, the border was hard and raised, and the center smooth and depressed, while there were characteristic syphilitic tubercles on the face, but none of the characteristic scars always present in lupus vulgaris of long standing. He asked also what method of performing Wasserman's reaction had been used, as different results were sometimes obtained with different methods.

DR. POLLITZER agreed that this was a case of syphilis, and thought it probably hereditary.

DR. HOLDER said that he believed this case one of syphilis. The preservation of the cartilage of the nose in a case where there was such general involvement of the skin of the region was against the diagnosis of lupus vulgaris as also the apparently normal skin in the center of the lesions on the arm. This lesion in a photograph would simulate a ringworm because it was so superficial. It was a beautiful example of the superficial non-ulcerating serpigenous syphilide seen in the early part of the tertiary stage.

DR. HOWARD FOX, closing the discussion, said that he made the diagnosis of lupus for the following reasons: the tuberculous family history, the history of scrophuloderma and the slow evolution of the disease, the appearance of the nose, the results of the biopsy, the tuberculin and Wasserman tests.

Epidermolysis Bullosa Hereditaria. Presented by Dr. Cocks.

The patient is a boy 3 years old, born in America. The following is the history as elicited from his mother: At birth, which was normal the physician who attended the mother said he looked like "a raw baby." Within a half an hour after birth, on the parts that the physician had touched, in transferring the baby to the nurse, "blisters formed." The baby was then oiled and wrapped in cotton. The treatment was continued for three months; during this time no blisters formed on the body, but on the backs of the hands and feet which were not enclosed in cotton blisters from the size of a pea to that of a twenty-five cent piece kept forming, the palms and sole remaining free. The contents of the blisters were at first clear, gradually growing cloudy, and if not ruptured in thirty-six hours became yellowish. If the blisters ruptured during the

clear stage the base was slightly red and healed rapidly. If the contents became purulent the base was raw and healed slowly. The first six months blisters were always present on the hands and feet, although the skin of the body, which was protected by the cotton, was as healthy as that of her other children. At the end of the third month the baby was dressed; three months later, following a hot spell, blisters came on the entire body, with the exception of the face, and have been coming and going up to the present moment. Two weeks ago his face was first affected. There is no history of syphilis. There are two other children, a girl aged 5 years and a baby of one year. The mother has had no miscarriages. Blisters may be produced on the father's person by slight friction.

Grave's Disease with Telangiectasia. Presented by Dr. LAPOWSKI.

The patient is a woman about 30 years old. The family history is negative. She is a well built, married woman, with no children, suffering from a slight form of Grave's disease. The exophthalmos is not and has not been a pronounced symptom. The neck, chest, arms, abdomen, and especially the anterior surfaces of both breasts, are literally covered with red circles and lines in various directions and distributions. The red circles and lines can easily be deprived of their blood supply by a slight pressure with fingers or glass. The pale spot then looks like cigarette paper skin, which on stretching assumes a normal appearance. On removing the pressure the spot immediately gets red. There are no subjective symptoms. The skin is in all other aspects microscopically normal. No glands are enlarged. The condition is of several years' duration. No reliable history of the early beginning could be obtained.

Dr. POLLITZER said that the lesions in this case strongly resembled those described by Jonathan Hutchinson as angioma serpiginosum, though he would not make that diagnosis without further examination.

Syphilis of the Tongue. Presented by Dr. CLARK.

The patient is 55 years old, has always been well, and denies syphilis. She was married at sixteen. Her husband died four years later of tuberculosis. At twenty-three she had an ulceration of the nose, leaving the resulting deformity now visible. She first noticed the present trouble three weeks ago. It looks like a canker sore and has rapidly increased until the present time. She thinks she had a little trifling sensation at site of lesion some time before that. Three days ago she was given $2\frac{1}{2}$ grains of salicylate of mercury in the gluteal muscle, and to-day shows a marked improvement. There is less induration in the base of the lesions, the edges are less hard. One can now palpate the sub-maxillary region, but no glands are felt. The patient has had considerable sensation in the ulcer since the injection, and thought it was getting worse up to twelve hours ago. The diagnosis of syphilis is made because

no glands are found in sub-maxillary region, because of the marked improvement in three days, and because of a previous probably specific lesion of the nose.

Persistent Oedema of the Face Following Grippe, and a Lichenous Affection on the Hands. Presented by Dr. POLLITZER.

The patient is an unmarried woman, 28 years old; attack of grippe in December, 1907. During convalescence, swelling and redness of the upper eyelids which extended in the course of a month to the lower lids and cheeks. Patient first seen in March of this year. The oedema of the face has remained unchanged. There is slight itching at times. Urine normal. Massage was ordered. About the middle of July a lichenous eruption appeared on the hands and in the course of a week reached its present dimensions. On the dorsal surface of the fingers of the right hand over every joint there is a group of vivid red papules presenting, except for the vivid hue, the exact appearance of lichen planus, *without pruritus*. On the terminal phalanges encircling the proximal nail-fold there is a smooth bright-red raised area of semilunar outline. On the left hand there is an exact reproduction of the lesion of the right, except that a few of the joints are free. Some of the larger papules have a marked depression at their top, and this depression deepened as the case progressed, producing annular lesions, the largest of which does not exceed the size of a pea. On the posterior side of each elbow there is a small group of papules somewhat smaller in size, flatter and less brightly red than those on the hands and feet. Over the sternum a little to the left, there is an area about 5 cm. in diameter, made up of a close aggregation of small flat-topped papules with circular, not polygonal, outline and bright red color. A similar circumscribed patch with rounded papules was seen on the back of the neck, but this has extended in the past month so as to cover at present the entire back of the neck in a broad band two inches wide extending from ear to ear and limited by the hair border. On the internal malleolus of the right foot there is a ringed almost keloidal patch about a half an inch in diameter, and a smaller one of like appearance on the right malleolus. Under large doses of sodium arsenate hypodermically, the lesions have become a little paler and less prominent, notably those in the patches on the chest and neck. At the same time the oedema of the face, which has persisted for nine months, has improved so that it is now very slight. The papular eruption has many points in common with lichen planus, but also many points of difference as to make that diagnosis uncertain.*

DR. LAPOWSKI said that this was a case of lichen planus of peculiar localization.

DR. KINGSBURY said that this case corresponded to some of those reported by Little in the *British Journal of Dermatology* as granuloma annulare.

DR. POLLITZER, closing the discussion, said that he had considered a diagnosis of granuloma annulare, the ringed eruption of the fingers of Calcott Fox,

* In a microscopic examination of two papules from the fingers subsequently made, the histological appearances were characteristic of lichen planus.

but had rejected it, on account of the very extensive distribution of the lesions in the present case and the paucity of ringed lesions. The lesion on the neck could not be a lichenification, because there had been no itching, and hence no scratching. He regarded the oedema of the face and the lichenous eruption as independent affections.

Naevus Vasculosus. Presented by Dr. DANA HUBBARD.

The patient is four months old, from the class of Prof. Jackson at the Vanderbilt Clinic. On the forehead there was an elevated dark patch about a quarter of an inch in diameter, which has been entirely removed by carbon dioxide snow applied for one minute. On the left upper lid there is another scar: this occupies the site of a naevus containing varicosities so large that the upper lid could not be elevated. Carbon dioxide snow applied for one minute has effected the result shown. There is some loss of the eyelashes caused by the freezing, but this is a lesser evil than the presence of the naevus.

Diffuse Idiopathic Atrophy. Presented by Dr. HOWARD FOX.

The patient is fifty years old; born in Norway, a sailor by occupation. He came to America when fourteen years old. His family history is negative. He was rather delicate as a child, and for the past twenty years has suffered more or less from asthma. About twenty-five years ago his fingers and toes were frozen. The present affections first appeared upon the ankle about twelve years ago and was later followed by an eruption upon the arms and legs. Since then the eruption has steadily increased in extent and severity. With the exception of occasional slight itching there are no subjective symptoms. The general health is fair. The eruption is symmetrical and involves the extremities. The distribution upon the lower extremities is almost exactly equal in amount, whereas the left arm is much more extensively affected than the right. The patches consist of dry, thin, hairless, wrinkled skin, in places slightly scaly and presenting a general reddish to purplish color. The process is most marked over the knees and elbows. It is less marked over the sacrum, the postero-external aspect of the thighs, about the great trochanters, on the ulnar aspect of the extensor surfaces of the forearm, on the back of hands and fingers and on the legs and ankles. The face and trunk (except sacral region) are clear. There is present an eczematous condition about the ankles and also a marked dilatation of the cutaneous veins of the entire lower extremities. There is a general adenopathy affecting the femoral, inguinal, axillary, occipital and cubital glands. The enlargement of the femoral glands is very marked, some of them being as large as a pigeon's egg. There is no apparent enlargement of the spleen. The liver is apparently normal, the lungs are emphysematous. The heart normal. The patient is poorly nourished, and does not present a very robust appearance.

Acne Varioloformis and Lichen Planus of the Penis. Presented by Dr.

LAPOWSKI.

This case is presented in order to determine whether the several

papules on his glans penis are lichen planus lesions, or are of the same character as the lesions on scalp, forehead and temporal region, which are of two years' standing and clinically correspond with acne varioliformis.

DR. ROBINSON said that the lesions on the face were those of acne varioliformis, and that those on the penis were of a different character.

Syphilis of the Lip. Presented by Dr. HOWARD FOX.

The patient is 17 years old, a German, coachman. Last year a sore appeared upon the lower lip, which sore invaded the entire vermilion border, and became covered with thick crusts. Later the patient suffered from indefinite rheumatic pains in the joint and severe headaches. When seen first on September 2d and photographed, there was no evidence of syphilis except the lesion of the lip and a slight hard swelling of the submaxillary glands. He had previously received a dozen intramuscular injections and a half dozen inunctions. During the past two months he has been treated at the Skin and Cancer Hospital by mercury internally. His serum was tested on November 4th by the Wassermann and by the Noguchi reactions and found to be positive. At present there is only a slight scar on the lower lip. The accompanying photograph shows the appearance of the lesion on September 2d, when it was difficult to decide whether the lesion was syphilitic or not, and if so, whether it was the primary or secondary stage of the disease.

DR. LAPOWSKI said that a few months ago, when this lesion was covered by a thick scab, there were many pin-headed deep ulcerations suggestive of tuberculosis miliaria cutis.

Dermatitis Papillaris Capillitii, treated by the Roentgen Ray. Presented by Dr. MACKEE.

The patient was presented before the N. Y. Dermatological Society by Dr. Fordyce on March 28, 1905 (*Jour. Cutaneous Diseases*, June, 1905) and at the International Dermatological Congress of 1907. The lesion, situated on the back of the neck, has taken fourteen years to develop, and before X-ray treatment was instituted it was two inches wide, four inches long with an elevation of about three-quarters of an inch. The Roentgen treatment was begun on April 5th, 1905, and was continued until June 27th of the same year. The exposures of ten minutes each were given twice weekly, with a soft or medium soft tube at a distance of ten inches. Erythema was produced on two occasions, causing a temporary discontinuance of the treatment. The tumor, which was greatly reduced in size as a result of the treatment, continued to improve after the application of the X-ray was discontinued, finally becoming perfectly flat. At the present time there does not appear to be any tendency toward a relapse.

Lupus Vulgaris of the nose, lips and palate, showing the result of X-radiation eighteen months after treatment. Presented by Dr. MACKEE.

This patient was presented before the N. Y. Dermatological So-

ciety, by Dr. Mewborn, Jan. 24, 1905 (*Jour. Cutaneous Diseases*, April, 1905). After the lesions had been healed as a result of the Roentgen treatment, the patient was again presented before the society by Dr. Mewborn, on Oct. 24, 1905 (*Jour. Cutaneous Diseases*, Dec. 1905). The history of the case, together with the Roentgen technique, may be found in these reports. The routine treatment was discontinued on November, 1905. On May 27, 1907, a small ulcer developed in the nose, which healed after six short exposures, limited to the ulcerated area, covering a period of two weeks. Upon several occasions during the past eighteen months small ulcers have made their appearance upon the gums and upon the floor of the nose, but they have always responded very promptly to treatment by dusting powders, antiseptic washes, etc. There are at present a small excoriation in the nose and two small denuded spots on the upper gum, but it is doubtful if they are active manifestations of the original disease. The nasal septum, which was destroyed, has been partially restored by a plastic operation performed by Dr. J. A. Bodine.

SECTION ON DERMATOLOGY, NEW YORK ACADEMY OF MEDICINE

Stated Meeting, held Dec. 1, 1908

Dr. S. POLLITZER in the Chair

Previously shown, Tuberculide. Presented by Dr. LAPOWSKI.

This case was presented by me in October, 1906 (see *Medical Record*, Jan. 5, 1907, Vol. 71, p. 35), as a case of tuberculide. The diagnosis was questioned and syphilis suggested. He was put under antisyphilitic treatment (calomel injections combined with rubbing and potassium iodide) and this has been continued with intervals for the last two years with no result. Then creosote and cod-liver oil in capsules were substituted, and an improvement took place, lasting only a short time. The case was presented at the last Dermatological Congress in 1907 as a case of tuberculide. I present him again to-night to show that the clinical aspect is the same as it was in 1906, in spite of specific treatment—and the progress of the disease seems to speak for a tuberculide.

DR. GOLDENBERG said that he would suggest the use of tuberculin for diagnostic purposes, specially to see if there could be any local reaction.

DR. DILLINGHAM said that when this case was first shown, he had thought it probably syphilitic, but at the present time it was evidently not syphilis, and that he knew no better term for the case than tuberculide.

DR. POLLITZER said that he considered this a case of chronic folliculitis. He attached very little importance to the tuberculin test: a negative reaction might exclude tuberculosis, but a positive reaction had very little value, as it may be obtained in so many apparently normal persons.

DR. LAPOWSKI, closing the discussion, said that the patient was shown in order to demonstrate that the disease was not syphilis.

Diffuse Symmetrical Scleroderma. Presented by Dr. WALLHAUSER.

The patient is aged 36, a native of Austria, married and has two

healthy children. There is nothing unusual regarding her parental history. About eight years ago, while pregnant, she developed an inflammation of the left hip joint for which she was treated for a period of six years, resulting finally in almost complete ankylosis. The present trouble developed gradually without premonitory symptoms. She became aware of her ailment only after attention had been drawn to the hard condition of her skin while shaking hands with a friend. She thinks it first showed itself about two years ago, since which time she has lost considerable weight. The entire skin of the body shows some atrophic change, but the parts chiefly affected are the face and hands. Her expression has changed markedly, the features formerly broad have become narrowed and drawn. The change involves particularly the lower part of the face; the eyelids are apparently not affected. The fingers are partly ankylosed, the third and fourth are flexed. At the tips, where the atrophic changes are most marked, the nails have curved inward. The skin of the hands extending to the forearms is hard and tense, distinctly atrophic, and darker than normal in color. Superficial ulcerations which are very painful have appeared from time to time on the fingers and lower extremities. There are no subjective symptoms, although on exposure to cold the hands become painful, swollen and more rigid. Her general health is not preceptibly affected.

For Diagnosis. Presented by Dr. DAISY ORLEMAN ROBINSON.

The patient is a female aged 22 years, married three years, no children. No history of any cutaneous disease or of tuberculosis in patient or in any member of her family. The history of present eruption is that it started eight months ago as a blackhead on the right cheek at the site of the present large lesion. This she squeezed sufficiently to injure the part, and on the subsequent day observed a pimple at said site which became inflamed, and a "mother plaster" was applied. Several days after a boil was formed, which caused pain, and a physician was consulted. Antiphlogistin was given as an application for about seven days, much pus being evacuated, and there was a gradual formation of an open wound. Two months later the smaller lesion appeared in the form of a little pimple. Another physician was consulted, and zinc ointment and a lotion was applied, and the X-ray was used once. The eruption was seen by Dr. A. R. Robinson (October 27), who lectured upon it at the New York Polyclinic Medical School. The lesions were located as at present and were of the same diameter,—two lesions on the right side of the face, one half of an inch from the side and lower part of the nose. The larger lesion was sharply limited, the peripheral limit being slightly elevated and merging apparently into normal tissue, whilst the mass appeared as a large, tubercular growth, elevated, somewhat rounded, devoid of ulcerations or scar tissue formations (except one portion to be noted later), reddish, with numerous dilated capillaries coursing over the whole surface. It appeared as if there were a number of very small, pin-head sized, scattered lesions toward the margin

that suggested markedly the primary apple jelly-like lesions seen in lupus vulgaris. Outside of this lesion were no small isolated lupus-like lesions to be observed. The whole mass was soft to the touch, and gave the impression that with a pin penetration would be easy as in an ordinary lupus vulgaris. No scar tissue could be recognized definitely, but there was a suspicion of its existence. Toward the upper part of the lesion was an ulcerated surface about one-half of an inch in length by one-eighth of an inch in diameter, which ulceration was superficial, showing a reddish, almost granular looking base that was covered with a slight amount of purulent material, which bled easily upon traumatism. She stated that this ulceration followed an application which the physician had made several days previously. The smaller lesion resembled the larger except as to size and that it contained no broken surface. It was sharply limited, slightly elevated, reddish in color, with numerous dilated blood vessels on the surface. No appreciable scaling was noted on either lesion. The age of the patient, the objective character of the lesions as described, the duration of existence of the lesions, the granular, easily bleeding surface of the ulcer, suggested the probability of a tuberculosis of the lupus vulgaris variety. The absence of definite isolated primary apple-jelly-like lesions, the sharply-cut ulcerated area and the rather smooth, rounded surface, was opposed to this view. The softness of the entire mass, the presence of numerous dilated capillaries, the very slight elevation at the periphery, the firmness of the tumor mass, the absence of any ulceration in the central portion and the duration of the lesions were opposed to the diagnosis of syphilis. The question of pyogenic infection (staphylococci particularly) was considered but not regarded as probable without further study of the case. However, it seems to me that that these organisms occasionally produce lesions quite difficult clinically to be diagnosed from lesions of blastomycosis, tuberculosis, sarcoma and syphilis. The lesions presented none of the characters of an erythematous lupus when first seen, but as observed to-day they appear to bear more resemblance to this disease than to any of the others considered. The upper and larger lesion is one and one-half by three-quarters of an inch in diameter, reddish, the margin is sharply defined, but not elevated, and only a very slight adherent scaliness is present. The upper portion of the uppermost central part is depressed and a small area of the lower outer central portion has the appearance of beginning atrophy. There is a dilatation of the cutaneous capillary vessel. The lower and outer lesion is one-half of an inch in diameter, quite reddish in color, the border elevated, with a little tendency to scaliness and a slight indication of atrophic scar tissue formation through the lesion, and a marked dilatation of the capillary vessels. There are no constitutional or subjective symptoms present.

I made a tuberculin test (Von Pirquet's), and the opthlmo-tuberculin test November 28th, with a negative result. Blood examination showed a slight polynuclear leucocytosis. The treatment for the first

three weeks consisted in the administratio of potassium iodide and corrosive sublimate and calomel locally. The ulceration disappeared at the end of two weeks, and since then there has been no sign of any broken surface. The scar to be seen at the upper part of the larger lesions represents the location of the previous ulceration.

DR. HOLDER said that he understood from the history that formerly there existed numerous nodules in the lesion resembling lupus nodules. These had disappeared under mixed treatment. If such was the case, the lesion was probably a tertiary syphilide.

DR. DILLINGHAM said that at first glance, when he first saw the patient, these lesions appeared to be syphilitic, but that closer examination showed that the margin, though elevated, was soft, with no induration, and that the base bled easily. There was no apple jelly masses, no evident atrophy, and the lower lesion showed only dilated blood vessels. He believed that the healing of the ulcer was due to the local and not to the constitutional treatment, because the improvement ceased with the healing of the ulcer, while the mixed treatment was continued. At the later visit, atrophic spots appeared in the lower lesion, and the whole aspect was more and more suggestive of lupus erythematosus, which he believed to be the correct diagnosis.

Atrophia Maculosa Cutis. Presented by DR. LAPOWSKI.

The patient is a woman, domestic, single, born in Hungary. Her father died of an operation (abdominal); her mother died four years ago, cause unknown. There is no tuberculosis in the family. She has a slight cough, with moderate dullness above the clavicle and in the first space. Tubercle bacilli are found in sputum. On her trunk, and especially over the sternum, and on the breasts, abdomen, chest and arms, skin lesions of various forms are seen. On the forearms there is a pedunculated growth, soft to the touch, painless, with normal skin. On the scapular region there are pigmentary nævi in the form of pigmented patches, not raised above the skin. The other two forms of lesions are of peculiar character, which to my mind, recall the case of Oppenheim (*Arch. Derm. and Syph.*, vol. 81, p. 127). Bluish spots and small tumor-like elevations: The spots are of millet to pea-size, on the level of the skin, varying in color from dark brown to bluish, and about from forty to fifty in number. When the finger is passed over the surface of the spot, the skin falls in, so to speak, as if the frame supporting the skin had disappeared, giving the feeling of an empty space, a hole under the finger. The hole is round, with sharply cut edges. The skin covering the spot is not scaly nor changed in any other way except in color. In some places scars are visible in regions formerly occupied by the spots. On the arms, chest, scapular regions are scattered millet-sized tumors, slightly elevated, covered with normal skin. They can be easily depressed into the skin; a sort of hollow receptacle seems to be provided for them under the skin. The hollow space under the skin corresponds with the site of the tumor. The spots and tumors are painless. As in Oppenheim's case, there is a resemblance to Recklinghausen's disease, but the description corresponds so much to Oppenheim's case (p. 142), that I now present this case as an atrophia maculosa cutis.

DR. GOLDENBERG said that this was a case of Recklinghausen's disease, and called attention to the low intellectual condition of the patient as characteristic of the disease. He said that this case did not conform to the disease as described by Thibierge and Jadassohn.

DR. POLLITZER said that there was no true atrophy of the skin in this case.

DR. LAPOWSKI, closing the discussion, said that in Recklinghausen's disease one did not see macular eruptions, and atrophy producing spots into which the finger dips when passed gently over the skin. He acknowledged that the case did not correspond exactly to the description of Thibierge or of Jadassohn, but claimed that it conformed exactly to that of Oppenheim, who had in his mind the possibility of his case being Recklinghausen's disease, but microscopically it proved atrophía maculosa.

Lichen Planus Pemphigoides. Presented by DR. LAPOWSKI.

The patient is a woman about forty-six years old, married. She has had seven pregnancies resulting in six living children, and one miscarriage six weeks ago. The present condition is of three weeks' duration. The whole body, except the face, palms, and soles, is covered with lichen planus patches. Itching is mostly felt on the lower extremities. On the buttocks, thighs and crura, bullæ from millet to pea-size appear on the papules. The bullæ are associated with papules from the beginning. The patient has not taken any arsenic, and the patches on the thighs were protected from scratching, but bullæ appeared, remaining a few hours (6-8) and then breaking and disappearing, leaving only a reddish, moist surface.

DR. DADE suggested that the bullæ might be the result of scratching.

DR. LAPOWSKI, closing the discussion, said that this was the second example of this disease seen by him. The first case had been taking arsenic, and it was thought that this might account for the bullæ. The patient now presented had taken no arsenic or other drug, and the bullæ appeared on lichenoid papules, in regions showing no evidence of scratching. He was certain, therefore, that they were an essential part of the disease.

Ulcus Cruris Trophicum. Presented by DR. LAPOWSKI.

The patient is a man, fifty-five years old, of very moderate habits. There is no personal or family history of syphilis. Ten years ago a small sore appeared on the left small toe; later gangrene developed, and two toes and some bones were removed, leaving a scar, stretching from toe to heel. Seven months after operation the present ulcer developed in the lower third of the anterior surface of left leg. Various remedies and applications were used, skin grafting was tried, but the sore would not heal. Four years ago he was under my care, receiving mercurial injections and potassium iodide, but with no result. The late Dr. Lassar succeeded in improving the condition of the sore by local baths with potassium permanganate and milk dressings, but the ulcer was never healed. The same method is used at present, but with small success. The ulcer is of the size of a dollar, with raised infiltrated edges, the surrounding skin is painful to the touch, the floor of the ulcer is clean and granulating.

DR. GOLDENBERG said that he had seen this case many times in the past two years, and that many methods of treatment had been followed, but without success.

Trichophytosis of Lower Eyelid. Presented by DR. GRAESER.

The patient is an engineer, thirty-six years old, with no preceding personal or family history of syphilis. Ten days ago a small itching vesicle appeared on the lower eyelid of the left eye, and spread until at the time he presented himself to me, three days ago, it measured 1.5 c.m. from the margin of the eyelid (which it did not cross) downward, and 3 c.m. from the canthus inward toward the nose. The whole area was elevated, slightly reddened; the margin consisted of a number of elevated vesico-pustules, which showed little tendency to pus formation. The center was slightly depressed and showed some scaling. The process at time of presentation, three days after the first inspection, has been checked and somewhat improved by the application of beta-naphthol 0.5, Flor. Sulph. 1.0, Lanolin 5.0, Vaseline 5.0.

DR. POLLITZER said that at first sight this case was very suggestive of a tubercular syphilis, but that closer examination showed that the border was composed, not of tubercles, but of small papulo-vesicles.

MANHATTAN DERMATOLOGICAL SOCIETY

10th Regular Meeting, June 12th, 1908.

A. BLEIMAN, M. D., Chairman

Multiple Scleroses; Secondary Lesions. DR. E. L. COCKS.

A. G., 27, Italian bricklayer. Patient says, "ten weeks ago he had a breaking out on the foreskin, composed of many small water blisters. Two weeks later, he had connection, although there were several small unhealed sores." One month later several sores appeared and have remained up to the present time. On the under side of the prepuce, just in front of the sulcus, are three pea-sized indurated non-painful ulcers, with undermined edges. Also present are a distinct roseola, general adenopathy and mucous patches on each tonsil.

Lupus Erythematosus Disseminatus. Presented by DR. W. S. GOTT-
HEIL.

Mrs. J. L., aged 40, Hungarian. Family and previous personal history negative. Two years ago noticed a small red spot on each cheek; lasted for a short time and then disappeared. Reappeared in the following spring and disappeared during the summer. In March of this year spot came again and spread peripherally. New spots appeared. At present has a distinct butterfly shaped lesion, red along the margin, bluish in the centre, slightly elevated border, covered with adherent scales, and shows some atrophy at the centre. Similar lesions over the right eyebrow, flexor surface of the right forearm and dorsum of right hand. On dorsum of right foot near the root of the toes are a number of small lesions which show retrogressive changes. On left forearm is one lesion which shows distinct scar tissue.

Generalized Lichen Planus. Presented by DR. L. OULMAN.

Patient 32 years old, was seen by the presenter a number of weeks ago and treated him for a general dermatitis. At that time there were no papules present. After an indifferent treatment the present condition appeared. Diffusely scattered characteristic lichen planus papules. In places where the papules enlarged peripherally have a slightly elevated ring, covered with very fine scales; the depressed centre is brown and the elevated margin is red to bluish red in color, the entire lesion on a non-inflammatory base. These pigmented lesions appeared very soon after the appearance of the entire eruption.

Endarteritis Obliterans (Syphilitica?). Presented by DR. W. S. GOTTHEIL.

A. G., aged 33, single, waiter, Russian. About three years ago had a urethral discharge which cleared up in six weeks without treatment. About that time began to have pains in both feet; went to a dispensary where he was told that his pains were due to his flat feet and advised to wear an arch which he did and obtained no relief. Pain increased gradually was soon accompanied by a feeling of numbness and coldness. About two and one-half years ago a number of small abscesses appeared between the small and fourth toes. The pain at this time was so severe that he called a physician to administer morphine. These abscesses lasted for two weeks and healed spontaneously. Then applied to another dispensary, where he was told that he had Raynaud's disease, and was given potassium iodide. No relief. Was then referred to the dermatological department of that dispensary, where he was given injections of bichloride of mercury three times a week. In the meantime the foot was becoming more and more cyanosed and finally remained pale, at times turning blue.

Examination—The artery under the inner maleolus cannot be felt. Pressure on artery in the popliteal space causes the entire foot to become cyanosed. Upon release of pressure it takes considerable time for any color to return. Almost three times as long as upon the right foot. The nails of the left foot show transverse ridges and do not grow as those of the right. They have not been cut in eight months.

The case is presented as one of probable syphilitic endarteritis obliterans, in spite of the absence of other signs of a syphilitic infection. Raynaud's is excluded on account of its asymmetrical beginning and absence of gangrene.

Orchitis et Epididymitis Bi-Lateralis Syphilitica, with Gummata Cutis.

Presented by DR. M. B. PAROUNAGIAN.

R. D., 24, born in Ireland, carpenter, married. Family history of no interest. Present condition started two and one-half months ago, when a number of sores, called "boils" by the patient, formed on his thighs and legs. Examination at that time: on the flexor surfaces of both thighs and legs were several sharply defined, punched out, ulcers, about three-quarters of an inch in diameter. There were also a few

recent scars; both testicles were enlarged, firm and indurated, no tenderness. The left one larger than the right. No pain, did not know that his testicles were enlarged. Prostate and seminal vesicles were not affected. Slight inguinal adenopathy present. The patient was then given intramuscular injections of salicylate of mercury, and immediate improvement was noticed.

Granulosis Rubra Nasi. Presented by DR. M. B. PAROUNAGIAN.
Courtesy of Dr. S. Pollitzer.

Gussie Y., aged 12, born in Austria. Six and one-half years in United States. The duration of her present condition is seven years. The affection is entirely limited to the nose, from the tip extending to either side, upwards very close to the bridge of the nose. The lesions are more prominent on the right ala than on the left.

The lesions consist of an erythematous base dotted with minute firm red papules irregularly distributed and show no tendency to become confluent. The surface appears granular and is rough to the touch. The constant presence of beads of perspiration gives a glistening appearance to the entire area. The condition is worse during warm weather. The only subjective symptom is an intense burning which cause lachrymation.

The case corresponds clinically to those presented by Jadassohn, *Arch fur, Derm.* 1902, vol. LVIII, p. 145; McLeod, *British Journ. of Derm.* 1903, p. 131; Ormsby, *Journ. of Cutan. Dis.* 1905, p. 183; Oulmann, *Man. Derm. Soc.* May, 1907.

Leprosy (Mixed Type), Improved Greatly Under Anti-luetic Treatment.
Presented by DR. M. B. PAROUNAGIAN.

Mr. O. P. R., aged 32, born in United States. No family history of any skin disease. Patient spent many winters in Florida. Present disease began three years ago. First noticed on the lower extremities and gradually extended to other parts of the body. The patient was presented at the last International Dermatological congress and accepted as a case of leprosy. In November, 1907, patient went to Hot Springs, where he was diagnosed and treated as a luetic. The treatment consisted of inunctions, baths, and internal medication. Remained at the bath with continued improvement, patient was put under large doses of bichloride and K. I., which his present condition amply justifies. The tubercles on the face and ears are no longer present. Anaesthetic areas getting smaller, pigmented areas regaining their normal color. Contractions of the fingers and toes disappearing. The treatment will be continued and the result reported in the near future.

M. B. PAROUNAGIAN, M. D., *Secretary.*

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A CHRONIC ITCHING PAPULAR ERUPTION OF THE AXILLÆ AND PUBES; ITS RELATION TO NEURODERMATITIS.*

By JOHN A. FORDYCE, M. D.

Professor of Dermatology and Syphilology in the University and
Bellevue Hospital Medical College, New York.

IT would seem that sufficient weight has not been given by American dermatologists to Dr. Brocq's conception of the group of skin diseases included by him under the term lichenification. This group, which has been gradually evolved by the separation of the lichen simplex of Vidal from eczema, deserves more attention from dermatologists in this country than it has received. All of us have had occasion to observe areas of thickened skin attended by an excessive amount of itching and made up of papules or diffuse patches not corresponding to typical lichen planus lesions, which, by many, are considered as secondary eczema on the one hand or related to the lichen group on the other. Brocq's generalization and conception of this group of dermatoses is certainly worthy of the most careful consideration, and the case which forms the subject of this report, having certain peculiarities chiefly because of its localization, I shall tentatively place in this class.

The patient was a house-wife; aged forty-eight; born in Austria; husband living; eight children, none of whom had had any disease, except those of childhood. Her family history contained nothing of interest; her mother died at thirty-four in the puerperium, and her father, aged eighty, is still in good health. Neither parents nor any member of her family ever had any cutaneous affection.

Her past history was negative. She had never been ill, except incidental to child-bearing, but she said that for the past eighteen years she had suffered a great deal from constipation and headaches. She had not menstruated for five years and the meno-

* Read before the 32d Annual Meeting of the American Dermatological Association, Annapolis, September 25, 1908.

pause was established without any disturbance beyond headaches and flushing. She was a well-nourished woman and showed no evidence of disease of the central or peripheral nervous system.

The eruption began about a year and a half ago and when she was first seen was of eight months' duration and at the height of its development. It was limited to the hairy parts of the axillary and pubic regions, and the patient stated that it began as an intense itching and burning which was soon followed by the formation of papules. Two months later the pubes became affected.

When she came under my observation, the disease consisted of translucent, smooth, shiny hemispherical papules from a pin-head to a small lentil in size, each with a tiny central punctum and a minute whitish plug. (Fig. 1.) When the cutis was put on a stretch, the lesions had a moniliform arrangement, following the lines of the skin, and the entire area was of a pinkish hue. The hair, after the appearance of the papules, became dry, brittle, lustreless and fell out. Over the pubes, however, the alopecia was only partial. In this region, too, excoriation of the papules was more marked than in the axillæ; otherwise the lesions were the same.

She complained a great deal of the burning and itching, the latter so intolerable that she was deprived of sleep at night. In consequence, she became very nervous and depressed, but aside from these symptoms, there was no constitutional disturbance. She perspired very freely, especially about the face. A number of complete urine examinations revealed only a moderate amount of indican.

Microscopically, tissue from the axilla (Fig. 2), showed the lesion to consist of an acanthosis, most marked about the sweat duct and a hyperkeratosis in the form of a plug filling the mouth of the duct. (Fig. 3.) Œdema was present both intra- and extra-cellularly and in places contiguous to the duct minute vesicles had formed. In the corium, the striking feature was the dilatation of the sweat coils. Some of the tubules contained partial or complete casts and the lining cells had undergone a parenchymatous degeneration. (Fig. 4.) An infiltration of lymphocytes and plasma cells sheathed the vessels and was aggregated about the coil. There was also a proliferation of fibroblasts. The capillaries were dilated and filled with blood. In places the collagenous tissue of the corium had undergone a mucoid degeneration.

The treatment was very discouraging for several months. She was given the various antipruritics in increasing dosage, cathartics and tonics, but the pruritus continued. X-ray was em-

ployed for several weeks, but it likewise failed to give relief. She was then ordered thyroid extract, gr. v. t. i. d., a ten per cent. aqueous solution of resorcin and the following mixture: Phenol and liquor potassæ, āā 5iiss oleum lini 3i. After a week or ten days she was less nervous, but the local symptoms were the same. The resorcin was increased weekly until it reached fifty per cent., otherwise, the medication was the same until early in the summer, when she said the itching was less at night and she was able to sleep. During July she went to the sea-shore and bathed in the surf daily for two weeks. This improved her condition and she was advised to continue the salt-water baths. When last seen, a week ago, although some pruritus and burning of the axillæ were still present, a marked change had taken place in the eruption. The papules had diminished in size, giving the skin the appearance of cutis anserina. The hair in the inferior angles of the axillæ was returning, while over the pubes it had all come in again. In the latter region the pruritus was now very slight. At no time had her scalp been affected.

This case is almost the exact counterpart of one reported by Dr. George Henry Fox and myself (*JOURNAL OF CUTANEOUS & GENITO-URINARY DISEASES* (Vol. XX, p. 1, 1902). The axillæ and pubes were likewise involved, the itching was intense and the slowness in responding to antipruritic medication was equally marked. The histological examination which I made showed changes of the same nature and location as the case under discussion, viz., a hyperkeratosis involving the intra-epidermic portion of the sweat duct, a hyperplasia of the stratum spinosum and a dilatation of the underlying coil glands with parenchymatous degeneration of their cells. In addition to the epidermic and glandular changes there was a lymphocytic and plasma-cell infiltration about the vessels and the sweat apparatus. In the same article Dr. Fox referred to another case of this affection in a neurotic young man, the eruption being limited to the axillary region and resisting in a similar manner all topical applications.

Recently I have had an opportunity, through the kindness of Dr. Fox, of seeing still another case of this rare condition, identical in every respect with the case reported, namely, itching papules in the axillæ and about the pubic region: in addition, however, similar papules were found about the nipples. The eruption had existed for about three months and had resulted in the hairs being rubbed off by the scratching.

In determining the nosological position of this affection its analogy in many respects with lichenification cannot be overlooked. To be more specific it may be included with the class of eruptions described by Brocq under the name of *névrodermite chronique circonscrite*. In his cases the primitive condition was a pruritus limited to certain portions of the body, the ensuing skin changes being the result of the rubbing and scratching which the itching occasioned. He described the latter as almost always intermittent with exacerbations which become worse at night. With the onset of the disease there are no visible changes in the skin, but under the influence of the trauma produced by the scratching it gradually becomes altered. At first there is only pigmentation and exaggeration of the natural lines, but by degrees the skin becomes thickened and distinct lesions more prominent. The patches are often multiple, two or three being present, and sometimes symmetrical, especially when located in the folds. The regions most often attacked are the neck, the upper and internal surfaces of the thighs, the loins, intergluteal fold, inferior and external part of the leg, the scrotum, labium majus, the waist line in women, the popliteal and axillary folds and the palms and soles.

Summarizing the histology, his sections showed an acanthosis and some parakeratosis. The papillæ were hypertrophied in all directions and œdematous at their tips. A lymphocytic infiltration was present about the vessels and pilo-sebaceous apparatus. The sudoriferous glands he found healthy. The latter finding is opposed to mine in the axillary cases, as in both marked changes were present about the sweat apparatus, namely parenchymatous degeneration and cystic dilatation of the coil and hyperkeratosis of the mouth of the duct. As a biopsy from the pubic region was not permitted, it can only be a matter of conjecture whether similar changes existed there.

It is difficult to account for the localization of this eruption to the axillæ and pubes or to follow its cycle of development. From the histology a plausible hypothesis would be that some toxic substance in process of elimination was responsible for the changes met with. On the other hand, the repeated traumatism to which the epidermic cells were subjected by virtue of the scratching might call forth a reaction which resulted in acanthosis and hyperkeratosis and by mechanical obstruction produced a cystic dilatation of the coil. Brocq includes among his *névrodermites* certain of the keratodermias of the palms and soles and it would be of considerable interest to



FIG. 1.



FIG. 2.

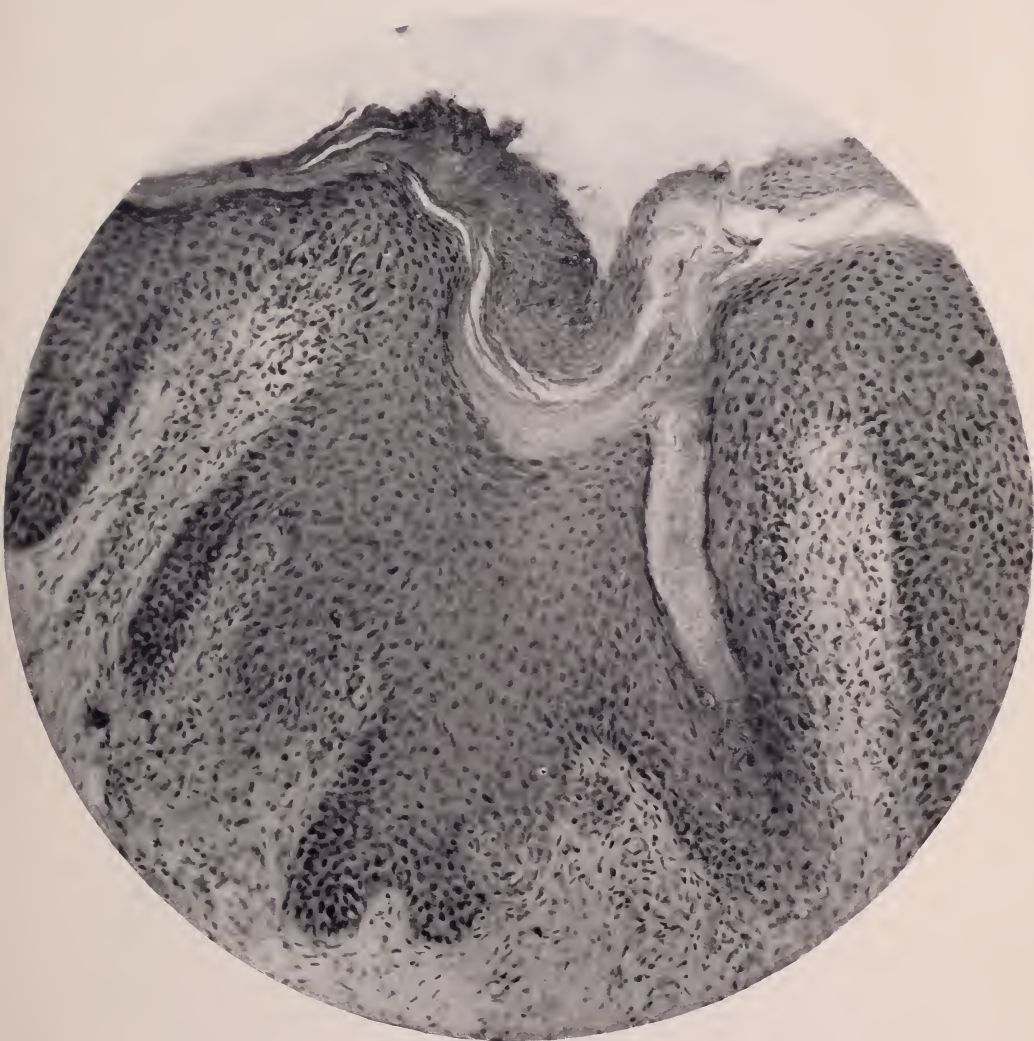


FIG. 3.

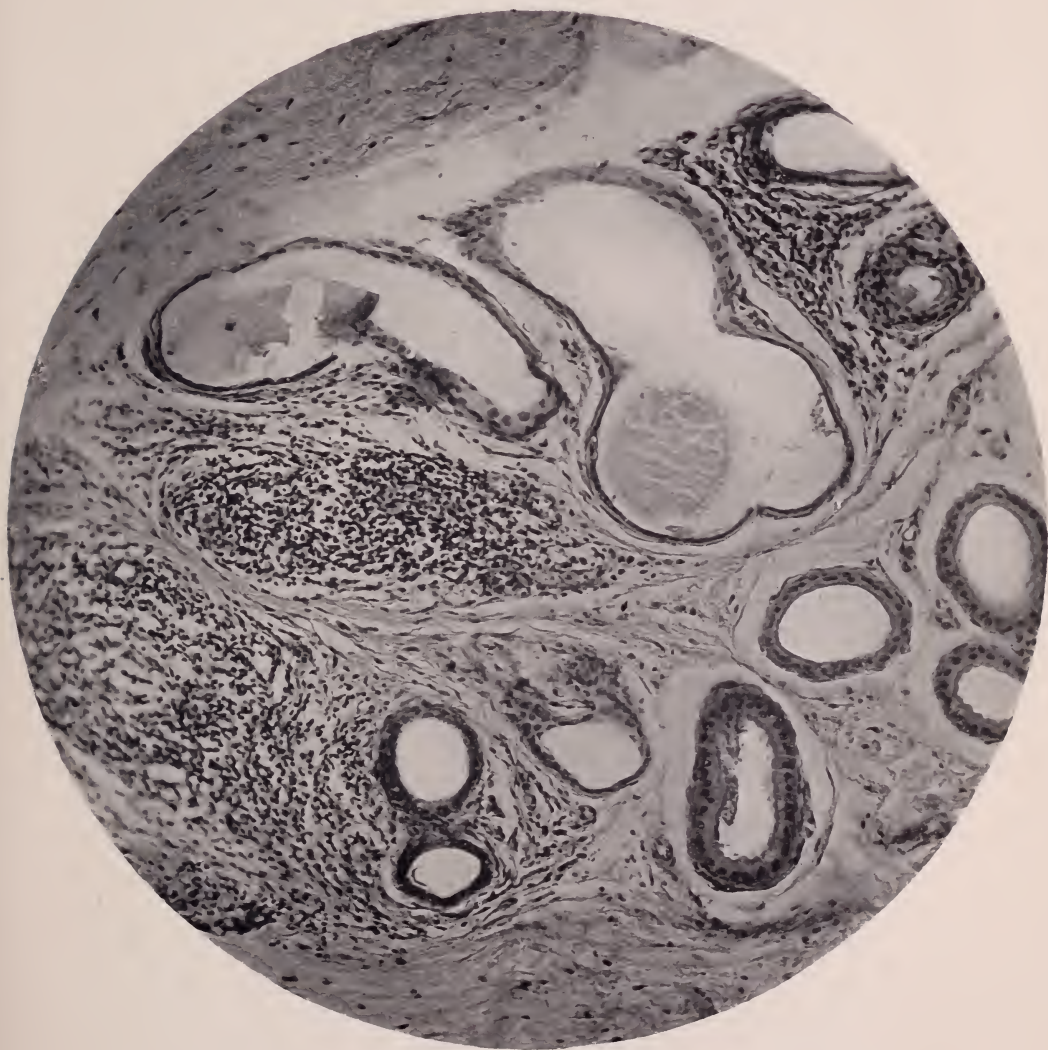


FIG. 4.

determine whether or not in these cases the coil glands were affected in a manner similar to those from the axillæ.

In conclusion, it seems to me that the similarities between the case under consideration and those of Brocq are more marked than the differences, and the latter may in all probability be explained on anatomical grounds. The affection always begins with intense pruritus, the cutaneous lesions following as a direct consequence. It is true, however, as pointed out by Brocq, that there must be a tendency on the part of the skin to lichenification, the manner in which the skin reacts to irritants determining to some extent the clinical manifestation of the disease. Until we have acquired more positive knowledge, I feel justified in calling this distressing affection a variety of neurodermatitis, probably toxic in origin.

DESCRIPTION OF PLATES

FIGURE 1. Papules in the axilla from a pin-head to a lentil in size, smooth, shining, translucent, and following the lines of the skin. The hair has all been rubbed off.

FIGURE 2. Showing the entire lesion consisting of an acanthosis localized about the sweat duct with hyperkeratosis of its orifice and superficial vesicle formation. The coil glands are dilated, the cells are the seat of a parenchymatous degeneration, and some of the tubules contain casts. An infiltration of lymphocytes and some plasma cells is present about the vessels, the duct and the coil. The collagenous tissue in places has undergone a mucoid degeneration.

(This photomicrograph is from the case originally reported by Dr. Fox and myself in *THE JOURNAL OF CUTANEOUS DISEASES*, Vol. XX, 1902, p. 1.)

FIGURE 3. Showing acanthosis and the horny plug in the mouth of the sweat duct.

FIGURE 4. Showing cystic dilatation and degeneration of the coil glands and surrounding exudation. Two of the tubules contain partial casts.

ON THE THERAPEUTIC TESTING OF DERMATOLOGICAL REMEDIES.

By HOWARD FOX, M. D., New York.

THAT the physician of to-day should know even the names of the innumerable new remedies upon the market is expecting a good deal. That he should attempt to test in his practice, more than a few of these is asking something impossible. If the physician happens to have tried some new drug in a number of cases and obtained good results, it will not often be necessary to urge upon him the advisability of publishing them. In doing so he can rest assured that his observations, even though prejudiced, will receive notice, as the medical profession is always eager to read reports of new remedies for which enthusiastic claims are made.

While many are only too eager to report favorable results from a new remedy used perhaps in a very limited number of cases, few are willing to record their failures even after having faithfully tested some new remedy. It is one of the objects of this communication to urge that not only the good, but also the bad results be published after a fairly thorough testing of a new drug. In the case of dermatological remedies the conditions are peculiarly favorable for a fair and honest comparison. Whenever a new ointment or lotion is tried, the writer cannot too strongly urge that it be used upon one side or region of the body in comparison with another ointment or lotion used simultaneously upon the opposite side or other region. When the eruption is situated upon the extremities and is symmetrical, the conditions for a fair comparison are all that could be desired.

Sometime ago a series of experiments was undertaken by the writer to test the value of anthrasol, a preparation that has been highly recommended and that is manufactured by Knoll & Co. To the above firm, one of high reputation, the writer wishes to express his thanks for kindly supplying him with anthrasol for his experiments. In writing unfavorably of anthrasol, there is no desire to withhold praise for the attempt of the manufacturers to put upon the market a purified and improved preparation of tar. Praise should be given Drs. Vieth and Sack for analyzing tar and testing its separate constituents from a dermatological standpoint. The

analysis of the tar ordinarily used in medicine showed it to consist according to Vieth, of first, acid constituents, chiefly phenols; second, basic constituents chiefly pyridin; third, neutral distillable constituents, chiefly the tar hydrocarbons; fourth, pitch. Therapeutic experiments showed that only the phenols and hydrocarbons were of dermatological interest. The antipruritic results were due to the phenols, while the characteristic effects of tar were due to the hydrocarbons. The pyridin and the pitch were the unnecessary and injurious elements.

Anthrasol as put upon the market, is a pale yellow liquid of the consistency of olive oil, from which the coloring matter and injurious constituents have been removed. It has less of the odor that is characteristic of other tar preparations, being due in part to the addition of a little oil of peppermint.

The fact that anthrasol is colorless must in all fairness be admitted to be an advantage of importance. The writer is willing to say that if a clean, but only moderately efficient preparation of tar is desired, anthrasol will fill the requirements. With regard to the question of efficiency the case is, however, decidedly different. The coloring matter, impurities and injurious (?) constituents of the tar have been removed, but with them have apparently been removed much of the efficacy of the drug. The case is somewhat similar to the change that has been brought about by refining chrysarobin, a change that is better appreciated by the older dermatologists. The chrysarobin of to-day is frequently "refined" to such a degree that half its potency is gone.

In regard to the claim that anthrasol has not the disagreeable odor of other tar preparations it may be said that few patients even in private practice object to the odor of tar. In this connection it may be mentioned that the druggist who dispensed the anthrasol at the hospital frequently complained of the odor which it left upon the hands. She did not on the other hand consider the odor of oil of cade to be disagreeable.

From the writings of some well known dermatologists who speak in praise of anthrasol, the impression is obtained that it is equal or superior to other preparations of tar. The claims of the circular sent to physicians that "anthrasol possesses itch-allaying and kerato-plastic action in a still higher degree than common tar" are certainly not borne out by the experience of the writer.

The cases selected for treatment were subacute and chronic forms of eczema which were suitable for tar therapy in general. For

convenience, cases were chosen which involved the extremities and in which the distribution of the lesions was about equal in extent. If there was any inequality in the severity or extent of the patches anthrasol was invariably used upon the side least involved.

Certain difficulties were naturally to be encountered in attempting such a comparative therapeutic test. It was necessary to choose intelligent patients to properly carry out the treatment. It was also necessary that they should cheerfully co-operate in what was plainly an experiment. In most cases a ten per cent. ointment was used, in a few cases twenty to twenty-five per cent. ointment and in others equal parts of the tar and alcohol. It was difficult to follow many of the patients to a complete cure. In several cases the patient discontinued the use of anthrasol and continued the treatment on both sides with the other ointment. Other patients left the clinic, not wishing further experimentation. Before beginning the tests it was agreed with the representative of Knoll that the results of treatment, whether good or bad, would be published. It was also agreed, that it was fair to anthrasol, to use it in the same strength as the other preparation with which it was compared.

The preparation of tar used in most of the following cases for comparison with anthrasol was the oil of cade. In a few of the cases pine tar (*pix liquida*) was the preparation employed.

Case 1. Woman 40 years of age. Eczema of backs of hands and fingers, extending upon palms. Duration six months.

May 16, 1907. Anthrasol 10 per cent. right hand, pine tar 10 per cent left hand.

May 23, 1907. Both hands improved. No difference between two sides.

May 28, 1907. Right hand (anthrasol) slightly better.

July 22, 1907. Both hands well. Patient states that left hand (pine tar) was cured a week before right (anthrasol).

Result: Pine tar and anthrasol practically the same.

Case 2. Woman 28 years of age. Eczema of backs of hands and forearms. Duration three years on hand, one year on arms.

May 7, 1907. Anthrasol 6% on right side, cade 6% on left side.

May 14, 1907. Left side (cade) better than right though neither much improved.

May 28, 1907. Left side (cade) greatly improved. Right hand only slightly improved.

Result: In favor of cade.

Case 3. Woman 30 years of age. Eczema of backs of hands. Duration, past five years on and off.

May 1, 1907. Anthrasol 10% right, cade 10% left.

May 8, 1907. Left side (cade) looks slightly better.

May 22, 1907. Left side better than right, less infiltrated, less scaly and "feels better."

May 27, 1907. Both hands improving, left still more than right.

June 12, 1907. Relapse due to dietary indiscretion and both hands now as bad as at first.

Result: In favor of cade.

Case 4. Man 60 years of age. Eczema of backs of forearms, hands and wrists. Duration three months.

May 11, 1907. Anthrasol 10% right, pine tar 10% left.

May 18, 1907. Left side (pine tar) better than right.

May 25, 1907. Both improved, left more than right.

June 8, 1907. Left hand nearly well. Right hand improved, though much less than left.

June 20, 1907. Left forearm now well. Left hand very much improved, and eruption now much less extensive than on right.

Result: Decidedly in favor of pine tar.

Case 5. Woman 45 years of age. Eczema of hands, fingers and wrists. Eruption somewhat more extensive on right hand. Duration six months.

May 22, 1907. Anthrasol 10% right, cade 10% left.

May 29, 1907. Left hand (cade) looks slightly better and "feels better" than right.

June 12, 1907. Both hands considerably improved, left slightly better than right.

June 19, 1907. Both hands improving. Difference in favor of left.

June 29, 1907. Both greatly improved. Left slightly smoother and eruption less extensive.

Aug. 12, 1907. Left hand (cade) almost well. Right improved, though not as much as left.

Result: Slightly in favor of cade.

Case 6. Woman 21 years of age. Eczema of palms and sides of fingers, left side more extensive than right. Duration past three years on and off. Present attack two months.

May 25, 1907. Anthrasol 10% right, pine tar 10% left.

June 27, 1907. Both hands improved, but left (pine tar) is smoother and less reddened. Patient, however, says that right hand "feels better."

July 22, 1907. No change. Patient writes later that she considers anthrasol superior in lessening itching.

Result: About same. According to patient's statement anthrasol was better, while according to observation pine tar appeared to be superior.

Case 7. Man 22 years of age. Eczema of backs of hands, more extensive on right side. Duration one year.

April 30, 1907. Anthrasol 10% right, cade 10% left.

May 9, 1907. Left hand (cade) very much better than right.

Result: Decidedly in favor of cade.

Case 8. Woman 26 years of age. Eczema of palms of left hand and three fingers of right hand. Duration eight months.

May 23, 1907. Anthrasol 10% right, cade 10% left.

June 27, 1907. Left hand (cade) almost well. Has improved much more than right.

Result: Decidedly in favor of cade.

Case 9. Woman 19 years of age. Eczema of hands, more extensive on right. Duration one year.

- Nov. 15, 1907. Anthrasol 10% left, cade 10% right.
 Nov. 19, 1907. Right hand (cade) much better than left.
 Nov. 26, 1907. Right hand relapsed. Both hands same as at beginning of treatment.
 Jan. 7, 1908. Treatment begun again. Fifty per cent. anthrasol in alcohol for left and fifty per cent. cade in alcohol for right.
 Jan. 14, 1908. Right hand (cade) markedly better.
 Jan. 28, 1908. Right hand almost well, left not as far advanced.
 Feb. 4, 1908. Right hand practically well. Left hand still infiltrated, fissured and itchy.
 Feb. 11, 1908. Right hand well. Left hand still rough and cracked.
 Feb. 18, 1908. Gave up anthrasol in disgust and used cade for left hand, which is now also nearly well.
 Result: Greatly in favor of cade.

Case 10. Woman 44 years of age. Eczema of palms. Duration, patch on right hand three months, on left hand two months.
 Feb. 4, 1908. Anthrasol 10% right, cade 10% left.
 Feb. 11, 1908. Both hands appear alike. Left "feels" a little better.
 Mar. 3, 1908. Used both ointments for two weeks. At end of this time, as right hand (anthrasol) became even worse, she gave up anthrasol and used cade for both hands, which are improved but not quite well.
 Result: Greatly in favor of cade.

Case 11. Woman 41 years of age. Eczema of backs of hands and fingers. Duration one month.
 May 30, 1908. Anthrasol 10% right, cade 10% left.
 April 3, 1908. Both hands improving.
 April 29, 1908. Patient gave up anthrasol, considering cade to be better, and used cade for both hands, which are rapidly improving.
 Result: Greatly in favor of cade.

Case 12. Boy 16 years of age. Eczema of backs of fingers. Right side somewhat more extensive than left. Duration four months.
 April 24, 1908. Anthrasol 25% left, cade 25% right.
 May 1, 1908. Some improvement, apparently equal on both sides, though patient thinks anthrasol has done the best.
 Result: In favor of anthrasol.

Case 13. Woman 48 years of age. Eczema of backs of hands. Duration four months.
 May 2, 1908. Anthrasol 10% right, cade 10% left.
 May 9, 1908. Both hands improved, left (cade) more than right.
 May 12, 1908. Left hand decidedly better than right.
 May 18, 1908. Both hands improving, left still better.
 Dec. 5, 1908. Discontinued treatment in interim, due to serious illness. Hands again relapsed. Same ointments renewed.
 Dec. 19, 1908. Left hand (cade) more improved than right.
 Result: In favor of cade.

Case 14. Woman 19 years of age. Eczema of backs of hands. Duration three years on and off.
 May 22, 1908. Anthrasol 10% right, cade 10% left.
 May 29, 1908. Left hand (cade) shows more improvement.
 June 5, 1908. Left hand shows striking improvement over right.

June 12, 1908. Left hand well. Patient gave up anthrasol and used cade for right hand, which, while not yet well, shows more improvement than from any application of anthrasol.

Result: Greatly in favor of cade.

Case 15. Woman 39 years of age. Eczema of backs of hands and fingers. Left hand more extensive. Duration six months.

June 23, 1908. Anthrasol 10% right, cade 10% left.

June 27, 1908. Both hands improving.

July 2, 1908. Both hands improving.

July 9, 1908. No improvement in either hand.

July 10, 1908. Both hands about same, with possible slight advantage for anthrasol.

Result: Slightly in favor of anthrasol, although more extensive side treated with cade.

Case 16. Woman 22 years of age. Eczema of fingers. Duration eight months.

July 29, 1908. Anthrasol 10% right, cade 10% left.

Aug. 4, 1908. Both hands show improvement about equal in amount.

Result: The same.

Case 17. Woman 18 years of age. Eczema on soles of feet.

June 30, 1908. Anthrasol 10% right, cade 10% left.

July 3, 1908. Both about same.

Result: The same.

Case 18. Man 35 years of age. Eczema of knuckles. Duration, every winter for past seven years upon right hand, past two years on left hand.

Nov. 9, 1908. Anthrasol 10% left, cade 10% right.

Nov. 23, 1908. Patient found the cade to be so much better that he used it for both hands, which are now greatly improved. Itching was relieved by the cade alone.

Result: Greatly in favor of cade.

Case 19. Woman 50 years of age. Eczema of palms and fingers. Right hand, especially palm, considerably worse than left. Duration two months.

June 13, 1908. Anthrasol 10% left, cade 10% right.

June 23, 1908. Both hands look about the same. Left hand (anthrasol) "feels" a little better.

June 30, 1908. Both hands improved. Left hand looks and feels slightly better.

Result: Slightly in favor of anthrasol.

Case 20. Woman 22 years of age. Eczema of backs of forearms. Left side considerably more severe and extensive. Duration six weeks.

Dec. 26, 1908. Anthrasol 10% right side, cade 10% left.

Jan. 9, 1909. Both sides better, about equal now. Patient says left hand (cade) was quickest to improve. Anthrasol 25% right, cade 25% left.

Jan. 16, 1909. Both sides greatly improved, left still better.

Jan. 30, 1909. Discontinued anthrasol on own initiative and used cade for both hands. Both hands nearly well.

Result: Greatly in favor of cade.

Case 21. Man 58 years of age. Eczema of backs of hands and fingers. Three times as extensive on right hand, also more severe. Duration nine months.

Jan. 19, 1909. Anthrasol 10% left, cade 10% right.

- Jan. 23, 1909. Right hand (cade) decidedly better. Patient wishes to discontinue anthrasol. Says left hand is more "irritated."
Jan. 30, 1909. Both hands improving. Cade better objectively and subjectively. Anthrasol 25% left, cade 25% right.
Feb. 6, 1909. Right hand decidedly better than left.
Feb. 13, 1909. Patient gave up anthrasol and used cade for both hands, which are now practically well.
Result: Greatly in favor of cade.

- Case 22.* Woman 38 years of age. Eczema of fingers, more severe on right hand. Duration one and one-half years.
Jan. 19, 1909. Anthrasol 10% right, cade 10% left.
Jan. 26, 1909. Both hands equally improved. Patient thinks cade does most good.
Jan. 30, 1909. Both improving, especially right, which is nearly well. Anthrasol 25% left, cade 25% right.
Feb. 3, 1909. Both hands nearly well. Patient thinks cade best.
Result: Favors cade.

- Case 23.* Woman 38 years of age. Eczema of fingers. More extensive and severe on right side. Duration four weeks.
Feb. 18, 1909. Anthrasol 10% left, cade 10% right.
Feb. 24, 1909. Both hands better. Improvement of right hand much more marked. Patient considers cade better.
Result: In favor of cade.

- Case 24.* Woman 48 years of age. Eczema of palms. Twice as extensive on left side as on right. Duration three years.
Feb. 16, 1909. Anthrasol, alcohol, olive oil equal parts, right side; cade, alcohol, olive oil equal parts, left side.
Feb. 20, 1909. Medication too strong, change to anthrasol 10% right, cade 10% left.
Mar. 6, 1909. Both palms better. Improvement about equal. Patient thinks anthrasol better.
Mar. 13, 1909. Both hands better. Improvement same. Patient thinks ointment of equal value.
Result: The same.

- Case 25.* Woman 40 years of age. Eczema of fingers. Three times as extensive on right side. Duration three months.
Feb. 17, 1909. Anthrasol 10% left, cade 10% right.
Feb. 24, 1909. Greater improvement of left side (anthrasol).
Mar. 3, 1909. Both hands improving, especially right (cade). Patient now thinks cade better.
Mar. 10, 1909. Left hand (anthrasol) more improved than right.
Mar. 17, 1909. Both hands practically well. Patient's final opinion is that cade is more efficacious than anthrasol.
Result: About the same.

To summarize, there were three cases in which pine tar was used in comparison with anthrasol. In two of these cases the result was the same, while in the third there was a decided advantage in favor of pine tar.

Of the twenty-three remaining cases in which the oil of cade

was compared with anthrasol, four shared no difference between the two preparations, three gave results favorable to anthrasol, whereas fifteen showed results in favor of oil of cade. In the cases favoring anthrasol the difference was very slight, while in at least ten of the fifteen cases favoring oil of cade, the difference was most marked.

The number of cases quoted, while not large, suffices in the writer's opinion to show that a much vaunted new remedy (anthrasol) is decidedly inferior to an old and tried remedy (oil of cade) in the treatment of certain forms of eczema. This opinion is unanimously shared by the writer's colleagues who kindly observed the cases during treatment at the clinic. For the material obtained from the service of the writer's father, Dr. George Henry Fox, at the Skin and Cancer Hospital, and from the service of Dr. George T. Jackson at the Vanderbilt Clinic, the writer wishes to express his thanks.

CONCLUSIONS

First. Not only favorable, but also unfavorable results should be recorded after a therapeutic trial of a new drug.

Second. In the case of ointments and lotions the new remedy should be used upon one side of the body in comparison with an old and tried remedy used simultaneously upon the opposite side.

Third. Anthrasol is a cleanly and moderately efficient preparation of tar in cases of subacute and chronic eczema. It is, however, decidedly less efficient for the purpose than the oil of cade.

SOCIETY TRANSACTIONS.

THE NEW YORK DERMATOLOGICAL SOCIETY.

Regular Meeting, January 26, 1909.

Dr. H. H. WHITEHOUSE, President.

Myeloma of Finger. Presented by Dr. FORDYCE.

The patient was a woman, aged thirty-three. Ten years ago she had a chancre of the lip for which she was treated over a period of two and a half years. She was married the first time at twenty and the second time six years ago. She has never been pregnant. Eight years ago she was operated on for tubal disease, a portion of one ovary being left. She has menstruated normally since. Three years ago she had a sore on her elbow.

Her present trouble is of eight months' duration. She first noticed a painless swelling of the terminal phalanx of the left middle finger; then the nail become discolored and was followed by some tenderness of the finger. After this a thickness was noticed beneath the nail and a dark red papule appeared at the tip of the finger. She had taken potassium iodide for four months in doses of grs. xv. to xx. t. i. d. before she was seen by Dr. Fordyce. For the past month she had had mixed treatment and one injection of salicylate of mercury, with no effect on the finger. A small piece, excised for microscopical examination, was found to be a myeloma or giant-celled sarcoma. Dr. Fordyce said, as a rule, these tumors were local malignant growths, showing no tendency to metastasis or recurrence after removal, and beginning generally in the periosteum of the jaw and long bones.

DRS. BRONSON and MORROW agreed with the diagnosis.

Dr. TRIMBLE said that he had had two cases of a similar nature several years ago. They were found to be sarcoma—one, a giant-celled, and the other a melano-sarcoma. Both lesions were on the end of the thumb. Both thumbs were amputated by him, and a longitudinal section was made of each. The giant-celled growth originated from the periosteum, but it could not be definitely determined whether the melanotic growth came from the bone or periosteum. One of the cases showed a fungating condition on the end, very much like the case shown to-night. It was, however, more exaggerated, having existed longer. He was under the impression that the condition (on the fingers) was rather rare, as in looking up the literature several years ago only five cases were found—three of them on the thumb and the other two on the fingers.

Burn from Leucodescent Lamp. Presented by Dr. MORROW.

The patient, Miss. A. M., age forty-nine, a school teacher. Father died of cancer of the lip, at sixty-nine; mother of apoplexy, at seventy-four. In September and October, 1907, on return from her vacation

she had an attack of paratyphoid, lasting five weeks. For some months previous to this attack she had slight œdema in both lower limbs, with pains similar to those of neuritis. She had been seen by two physicians previously and treated for the œdema without benefit. The cause of the œdema has not yet been determined. With other treatment, she was receiving a ten minute seance with a 500 candle power leucodescent lamp, which somewhat relieved the pain in the limbs. In January—about the fifteenth—in the course of one of these treatments, the attending physician stepped into the adjoining room, telling the patient to let him know if the pain became too intense. She determined to take all she could, so did not call the physician, and when he returned there was a blistered surface on the posterior and lower portion of the left lower limb, and also on the right leg just below the popliteal space. In twenty-four hours the skin had sloughed off, leaving a raw angry surface, which day by day seemed to get deeper and deeper in the left leg. The burn on the right leg healed in about three weeks, leaving a brownish scar. The ulcer on the left leg increased in size and depth until it was about the size of a silver dollar and nearly a quarter of an inch in depth. The tissues about the ulcer, to the extent of three inches were red and inflamed. Various remedies, salves, ointments, etc., were used with no avail. In May she entered the Hahnemann Hospital and was there kept in bed for four weeks with the limb elevated. Every other day a treatment with a Bier's apparatus was given. Practically no dressings were applied. At the end of four weeks the ulcer had become covered with a very thin skin. For two weeks thereafter the patient was allowed out of bed a portion of each day. She then went to the country for the summer, and began using the limb more and more each day. Within a few days, after leaving the hospital, the tissue over the site of the original ulcer began to break down until within three weeks the ulcer had re-formed. On her return to the city, in September, dressings were renewed, but nothing seemed to produce the slightest benefit. On January 2, Dr. Morrow was consulted, and suggested the application of a modified preparation of the calamine and zinc lotion during the day and the oleate of bismuth ointment at night, which has caused a slight general improvement.

X-ray Burn on Finger. Presented by DR. MORROW.

The patient, a physician, thirty-six years of age, family and previous history negative, entered upon X-ray work nine years ago. The hands very quickly showed a susceptibility to X-ray dermatitis, but the work was continued for three years with practically no precautions. During this time the patient was under the influence of the X-ray for about two hours each day. In the fourth year comparatively little X-ray work was done, and for the past five years none at all. During the past five years the patient has engaged in surgical work with its attendant scrubbing, but always operated with gloves.

The baneful influence of the rays was first characterized by erythema, pain and swelling. As acute inflammation subsided, hand and fingers developed areas of chronic infiltration and in some places warty growths. The nails exfoliated several times. During the past five years there has been a slow but gradual improvement. Several infections have developed underneath nails, but have cleared up. About March, 1908, patient developed what appeared to be an infection underneath nail of third finger. This infection was not very acute, and shortly afterward an area of inflammation developed on finger above nail. From these two points of inflammation a small amount of pus was secreted. During summer, several times these two infected areas healed for a few days, but broke out again. In August, excision of finger was considered, at which time he was referred to Dr. Morrow. Previous to this time the patient had had no definite treatment for the hand. Dr. Morrow treated hand and other fingers with constant application of oleate of bismuth ointment underneath a suede glove, advised curetting of finger and enucleation of nail. This was done early in September. Treatment with ointment was continued over rest of hand until October 18, when—contrary to the advice of Dr. Morrow—the finger was amputated.

After stopping treatment following operation, there was an exfoliation of the skin over the whole hand, including most of the hardened and warty areas. The infiltration decreased or disappeared, and tenderness on pressure was very much less. Since the latter part of September the finger has been treated to continuous action of the ointment under glove, and ointment has been applied to rest of hand at night. There is no pain in hand, and skin is much more flexible than at any time since inflammation was established.

DR. BRONSON said that he did not see any resemblance to X-ray burn in the second case, and thought that the original cause had very little to do with the present condition. The ulcer in this case had not the appearance of an X-ray burn. It had a moist, granulating surface, and not the dry, leathery appearance that X-ray burns usually have, and, moreover, as he understood in this case, there was no pain.

DR. MORROW replied that the pain was paroxysmal, but very intense, at certain periods, and said that he would be glad to have therapeutical suggestions for the case.

DR. WINFIELD said that he had been able to watch the case for the last three years. The finger which had been amputated was the last to be involved. When he first saw him the index finger had become infected during an operation, and there was a superficial ulceration over the joint, this lasted for some time, perhaps three or four months, but finally healed. The finger that had been amputated became ulcerated about a year ago, after an infection. This healed, but soon broke down again. Early in the summer he sent the patient to Dr. Morrow, who prescribed for him, the ulcer healed very nicely, but again broke down. The patient grew very nervous about his condition, and contrary to advice had the finger amputated; and because the axillary glands seemed large, had them removed also. Specimens from the finger were pronounced by three different pathologists to be epithelioma. Clinically the condition did not resemble epithe-

lioma at all and a specimen of the finger that he (Dr. Winfield) had sent to two competent dermatological pathologists were declared not to be malignant.

DR. WINFIELD said that at no time did the finger appear to him to be malignant, but the patient had decided to have the finger amputated, the operation had quieted his fears of cancer and now his general as well as the cutaneous condition had improved.

DR. TRIMBLE said that he had seen a similar case in a prominent X-ray worker, whose hands were almost like the present case, but he has lost no fingers, and is still engaged in X-ray work. He has apparently never been burned, but the lesions just appeared from the continuous use of the X-ray.

DR. WINFIELD replied that at first Dr. L—— had had a severe dermatitis, with considerable pain and swelling, followed by desquamation.

DR. WHITEHOUSE said that he had seen several cases like that of Dr. L——, one of them an X-ray worker in whom the keratoses, pigmented spots and telangiectasæ constituted the whole trouble, these cases did not always go on to malignancy. They responded in a remarkable manner to liquid air treatment. He had never seen anything that disappeared so quickly as the keratoses from X-ray on the hands. One application of the liquid air to each lesion was sufficient; it has never failed in his hands.

In regard to the other case, the woman's leg, all have had the same experience in regard to the non-efficacy of treatment. He himself had treated many, and they heal very slowly.

DR. DADE said that Mr. S——, the X-rayist at the Presbyterian and Roosevelt Hospitals, has practically a similar condition. He developed an epithelioma on the middle finger of the left hand and the finger was amputated. Later another epithelioma developing on the ring finger of the same hand the question of amputation came up. Treatment by liquid air was suggested by Dr. Blake before resorting to amputation as before. The finger gave Mr. S—— a great deal of pain, and he was quite ready for amputation. Liquid air was applied to the epithelioma and in two weeks the crust had fallen, leaving no trace of the lesion and with total cessation of pain. This was over a year ago and there has been no return as yet.

In this connection, Dr. DADE said that for the past five months not being able to get liquid air, he had been using as a substitute the solid carbonic acid combined with ether, in all the lesions to which he formerly applied liquid air. This method which he himself devised has proved very satisfactory, and is far more effective than the solid carbonic acid used alone as formerly, the results of which were so far inferior to liquid air. The intensity of cold of the solid stick of carbonic acid dipped in ether, while not so great as that of liquid air, is far greater than the carbonic acid used alone, and so far has answered every purpose very satisfactorily.

DR. MORROW said that it had very much the objective appearance of a burn from the X-ray. It was characterized by more or less pain, which was very intense at times, and by obstinate resistance to treatment. The treatment that had yielded the most satisfactory results was simply a protective and slightly stimulating ointment of oleate of bismuth.

In the other case, the objective appearance of the finger did not suggest to him epithelioma. It healed up a number of times, and did not manifest the clinical behavior of epithelioma, and he felt persuaded that if the Doctor had not gotten into this nervous condition the finger might have been preserved.

Case for Diagnosis. Presented by DR. WINFIELD.

The patient was a man about sixty-four years of age, a native of Virginia; no specific history, nor family history of tuberculosis nor can-

cer. Last May he had a lower molar tooth extracted and some bridge work done on the same side of the lower jaw.

A few days after the bridge had been put in place, a swelling appeared at the angle of the jaw, which gradually increased until now it involves the neck down as far as the clavicle; the skin over the swelling is of normal color and feels boggy; there has never been any temperature nor other indication of active pus infection; he was seen by two of the Brooklyn surgeons who decided that there must be dead bone about the jaw, and possibly a deep-seated abscess. He was accordingly operated upon, and much to the surprise of the surgeon, nothing was found; no dead bone, no abscess; but upon cutting through the skin and subcutaneous tissue a sticky, almost gelatinous fluid exuded, the cervical glands were removed, although they were not appreciably enlarged; specimens of the sterno-cleido muscles and the deeper structure of the skin were submitted to the pathologist, who pronounced it to be a blastomycetic infection.

The surgeons were not satisfied with the pathological diagnosis and referred the patient to him.

There were no clinical evidences of blastomycetic dermatitis; examination of the specimen did not appear to show any blastomyces, but looked rather like a streptococcic infection; the man had been put upon large doses of iodides, but with no benefit; the only thing that seemed to have any influence upon the swelling was a five per cent. solution of ichthyol in glycerin.

DR. FORDYCE said that it looked like a chronic streptococcus infection.

DR. BRONSON thought it did not correspond to the ordinary descriptions of blastomycosis. The history, commencing near a tooth, as it had, and gradually spreading to other parts and over a wide area suggested rather actinomycosis.

DR. JACKSON said that it did not suggest blastomycosis to him.

DR. WINFIELD said that he had presented the case because of the pathological diagnosis, as he could not reconcile the clinical appearance with that disease. It was a surgical case, and the patient was under the care of two surgeons, who, as a last resort, had sent the case to him, thinking that if it was blastomycosis he might be able to do something for it. He did not think it was blastomycosis, but it might be a streptococcus infection, though it was claimed that nothing was found in the examination to indicate that.

Case for Diagnosis. Presented by DR. G. T. JACKSON.

The patient was a man forty-one years of age, a roofer by occupation. He stated that there have been many deaths from tuberculosis among his relatives on both his father's and his mother's side, but none among his own brothers and sisters. The patient has been ill a great deal, especially from a recurrent intestinal disorder that caused him to undergo an operation during the past four months for appendicitis. He states that from his fifteenth to his twentieth year he had chorea, for which he had been given arsenic in large doses and more or less continuously, both by mouth and hypodermatically.

The disease for which he has now sought relief began many years ago as a scaly patch on the calf of his right leg. While he thought that it came during the years when he was taking arsenic, he could not note a relationship between the arsenic and the lesions. Seven years ago a well-known dermatologist told him the lesions were tubercular, and cut out a couple of them. One of the lesions did not return, while the other returned on the edge.

The eruption the man has is widely disseminated, but not abundant. The lesions began as pin-head papules that tend to aggregate in patches, which are raised, crusted and warty-looking. Here and there are red, flat, irregularly shaped patches. They give rise to no subjective symptoms, and of late are coming out in numbers.

Microscopical examination showed nothing more than warty formation.

DR. FORDYCE said he had seen the case a number of times and had gone thoroughly into the history. The man stated that he had taken arsenic for five years and it occurred to Dr. Fordyce that the eruption might be due to the drug. To prove this absolutely it might be well to investigate the possibility of determining the presence of arsenic in the tissues, as without such proof the connection of the skin disease with the use of arsenic would be more or less problematical. The histological changes were confined almost entirely to the epidermis, consisting of a marked acanthosis and hyperkeratosis with numerous swollen and vacuolated cells, similar degenerative changes being met with in such conditions as xeroderma pigmentosum, Paget's disease and Darier's disease.

DR. MORROW said that it was characteristic of most of these drug eruptions that they have a tendency to disappear after the drugs were discontinued and not return later unless the drug was resumed. He has seen arsenical keratoses, but they have always been most characteristically developed on the hands. He had not watched them long enough to note whether the character of chronicity had been impressed upon them or not, but he doubted whether arsenic is retained in the tissue after so prolonged a period of time. He did not care to express an opinion as to the diagnosis.

DR. BRONSON said that it hardly seemed possible that arsenic would produce such general lesions as these after twenty years. There was probably some other process going on. The lesions on the back of the hand closely resembled *verruca senilis* which, though not usual, were not so very exceptional in persons forty years of age.

Purpura Simplex (Extensive). Presented by DR. TRIMBLE.

The patient was a man with myriads of pin-point and pin-head lesions of iron-rust color, covering practically the whole body, with the exception of the face. The condition had existed for three months. When first seen, the patient exhibited a sulphur dermatitis on top of the purpura, with accompanying symptoms of diffuse redness, burning and itching. This was healed in a short time, leaving the present condition. Since the patient has been under observation, the lesions have been slowly but surely fading, but two weeks ago he had a recurrence; fresh crops of the eruption appearing on his back, shoulders and forearms.

The urine examination was negative. The man claims to have suffered from malaria twenty years ago. There are two marked general symptoms—a constant feeling of lassitude and a ravenous appetite.

DR. BRONSON said that the eruption occurred more on the thighs than on the legs, which was unusual in ordinary purpura. From its general distribution it impressed him rather as some form of erythema to which had succeeded purpuric extravasations. There were also some indication of a rheumatic history, which would suggest a form of peliosis.

DR. JACKSON said that last fall he had a similar case in a woman of middle age who was very fat. It had begun about three years ago as bright red and blue "spots" on legs, and had slowly spread upward so that when seen it was on the abdomen and some lesions were appearing about the shoulders. There were many pin-point pigmentary lesions on the legs, and everywhere there were small pin-point-sized vascular lesions. He was unable to classify it excepting as a purpura.

DR. MORROW said that he would not like to question the diagnosis, but if this were purpura it was different from any that he had seen. The redness of these lesions disappears under hard pressure. He had never seen purpura in so diffused a form. He agreed with Dr. Bronson that it had more the character of an erythema.

DR. FORDYCE said the case made on him the impression of being a drug rash, possibly one due to the ingestion of potassium iodid. He had seen purpuras having lesions like this one from the use of the drug, though usually, however, limited to the lower extremities.

DR. WINFIELD was inclined to think it belonged to the erythema group, and was not purpura.

DR. KLOTZ did not think it was purpura, but that it was a capillary telangiectasis, which assumed the form of a generalized nævus. In some places the red spots were slightly prominent. A similar case, he thought, had been reported by Dr. Pollitzer.

DR. WHITEHOUSE said that the generalized punctate character of the case is different from purpura, and that Dr. Bronson's suggestion that the little hæmorrhages might be part of a previous erythema, seemed quite plausible.

DR. TRIMBLE said that when he first saw the patient the eruption extended from the upper third of the thighs down. The patient had denied any history of rheumatism. He was fairly satisfied with the diagnosis of purpura. The eruption was follicular in character and similar to the condition below the knee. The sulphur which had been applied to his skin had caused the dermatitis, in some places, in others the condition shown to-night existed alone. He was treated for the dermatitis, which disappeared; after which this present condition stood out prominently. The lesions were iron rust in appearance now, and on stretching some of them apparently disappear, but in the daylight you can still see the remains of them, and when first seen they could not be pressed out at all.

The man stated that when the eruption first appeared it was not red and did not itch, but after the application of the ointment the itching commenced, and since the ointment had been stopped the pruritus had ceased. The purpuric spots existed prior to the dermatitis.

Case of Urticaria Pigmentosa. Presented by DR. SCHWARTZ.

The patient, a child three years of age, was first seen at the Cornell Clinic. The condition first appeared at the age of three months as a diffuse macular eruption all over the body, as at present, and has per-

sisted without change, except that at times the red color predominates, at others the brown. Past history negative. No illness of any kind. The urine fæces and blood have been examined and the only abnormality found was in connection with the blood, which showed hæmoglobin sixty per cent., and a rather prolonged coagulation time—varying from eight and a half to eleven minutes.

The diagnosis was generally accepted.

Psoriasis in a Negro. Presented by DR. DADE.

The patient was a full-blooded negress, eighteen years of age. The lesions first appeared four years ago; have never disappeared, but have continued to increase. The most extensive lesion is the one on the shin of the right leg, the plaques being fully three by four inches, completely covered up to its full limit by the silvery scales, which on friction come away in fine powder like white dust. The only interest in the case is that it shows that psoriasis does occur in negroes. This is the third case Dr. Dade had seen of psoriasis in a negro.

DR. JACKSON said that he thought it was psoriasis, although some say that it does not occur in the negro race. In the negro race we lose all aid derived from color. But the circumscribed, scaly, dry, not much infiltrated, chronic patch is similar to what we not infrequently see in the white race. The small lesions of similar character found on the elbows and elsewhere still more substantiate the diagnosis.

DR. KINGSBURY said that some of the patches suggested psoriasis, but being on a negro he would like to see more characteristic lesions before accepting the diagnosis.

DR. WINFIELD said that he had seen one other instance of psoriasis in a negro, and that was typical, and was almost identical with the case shown to-night.

DR. DADE said that he had followed the case for the past month and had seen new patches come and these patches increase; the patch on the leg has increased fully a half inch all around. In deference to one of the gentlemen at the clinic, the patient has been on mixed treatment alone for the past month, the patches increasing as seen. The patient will now be treated for her trouble—psoriasis—and will be shown again next month.

A Case of Linear Atrophy of the Skin. Presented by DR. G. T. JACKSON.

Miss G., aged twenty-three; born in Russia. She has never been pregnant, and has not menstruated for seven years. Five months after cessation of menstruation her abdomen began to enlarge and has slowly increased in size. About three and a half years ago the striæ began to appear and have increased in number ever since. For the past two years she has had a succession of what she calls abscesses on her back and about her shoulders.

She is of a masculine type, has a good deal of hypertrichosis, and a very prominent abdomen. She bears upon her body a number of scars from specific tubercles or gumma, and has a vast number of atrophic lines on the abdomen, as seen in pregnancy, and also has similar lines on the arms and legs.

Vaginal examination shows an undeveloped uterus, and did not enable the gynecologist to feel any trace of ovaries. No tumor formation was found to account for the prominence of her abdomen. It is supposed to be only great accumulation of fat.

A Case of Diffuse Atrophoderma. Presented by DR. G. T. JACKSON.

The patient is a Russian woman, aged forty-two. She states that the disease began about five years ago as an itching red spot on the dorsum of the right foot and another on the back of the left hand. After some three years, the process extended, so that now the entire right leg and left forearm are involved. The leg presents a marbled skin below the knee, and a reddened, wrinkled, thinned aspect about the knee. The skin of the left leg, from knee to ankle, is atrophic. About the knee, up to Poupart's ligament, the skin is reddened. The right forearm is diffusely erythematous, while the back of the hand and the parts about the elbow are atrophic, being thinned, wrinkled and red, with large blue veins showing through.

DR. FORDYCE said the lesions on the leg and elbow corresponded with the so-called symmetrical cutaneous atrophy, although the affection had not made very great progress, but some cases are seen in the very early stages where the disease has a distinct patchy character as in the one presented.

Morphoea—Tuberous Form of Lesions. Presented by DR. DADE.

The lesions started three years ago on the left side of the face, and now appear on the face, under the chin and on both upper arms. The fine blood vessels, so called "lilac ring," do not appear so distinctly in the night as in the daylight. The patient complains of nothing but the deformity caused by the lump on the left cheek, below the eye. This is about the size of an egg, quite hard, the skin over which cannot be pinched up—the tumor itself unattached to deep structures and freely movable. The chin lesion is not so movable. The arm lesions, symmetrical just above the elbows, inner side, have apparently undergone resolution, leaving complete atrophy of the structure involved, and only showing ivory white atrophic circular areas the size of a silver half-dollar. There is still present on the right arm a tumor the size of an English walnut, showing the characteristic "lilac ring."

DR. FORDYCE said the case was a very interesting one and would, in his opinion, require a microscopical examination to establish the diagnosis. The suggestion made by Dr. Lustgarten that it might be a member of the sarcoma group had some points in its favor.

DR. BRONSON said it did not correspond with any form of morphœa with which he was familiar, and he would rather class it with some other group than with scleroderma or morphœa.

DR. WINFIELD said that for or five years ago he had shown the case. The atrophy of the leg seemed to be less than on the arm. There was much less œdema than when she was here before.

DR. JACKSON said that it was much like a case he had shown two months

ago, and the gentlemen at that time agreed that it was a circumscribed scleroderma. The lesions can be picked up like tumors. They come and go in a more capricious fashion than we are accustomed to see in morphœa. It is not a typical morphœa, but the tuberous form sometimes spoken of. It would seem that we must reform our ideas of morphœa to make the usual form and this form fit in the same class.

DR. DADE said that it was not presented as a case of the ordinary morphœa, but was the tuberous form which Crocker and others describe. The "lilac ring" lesion on the face cannot be well seen by gaslight, but is very distinct and characteristic in the daytime.

Case for Diagnosis. Presented by DR. TRIMBLE.

The patient came to Dr. Fordyce's clinic on the previous afternoon for the first time. She has a rather peculiar condition of the abdomen, rather wide atrophic lines from previous pregnancies. Into these spaces there is a serous effusion, causing them to be much distended. They are tense and of a pinkish straw color. Seen from a little distance, they suggest keloids, but upon palpation they are quite soft. Dr. Trimble said that he had seen no similar case and presented the patient for clinical interest. The lesions seem to have subsided somewhat since he first saw them. The urine contained albumin.

Melanoma. Presented by DR. FORDYCE.

The patient is a woman, fifty-six years old, born in Germany. She first noticed a small elevated pigmented mole about two or three years ago on the inner side of her left foot, which began to increase in size six months ago. The tumor was irregular in size, about $2 \times 1\frac{1}{2}$ inches in diameter, slightly elevated and deep blue-black. There was no pain, hæmorrhage or discharge. Histologically the growth showed in places the structure of a mole and so intensely pigmented that the character of the cells was almost indistinguishable; in other places epithelial cells could be made out. Pigment was also present in the epidermis and in the cutis below were numerous chromatophores.

Dermatitis Herpetiformis. Presented by DR. FORDYCE.

The patient was a Chinaman, thirty-five years old, who had been previously shown at the Society some years ago. He had a dermatitis herpetiformis of seventeen years' duration, which has had a general distribution. At present there were no active lesions, but his skin over almost the entire body was pigmented, the pigmentation being broken up by small atrophic white scars. He had taken arsenic at various times and part of the pigmentation might be ascribable to the drug. The case illustrated the long duration of the disease and the more or less hopeless result of our therapy.

Symmetrical Keratoderma of Besnier. Presented by DR. DADE.

The patient was a young man, twenty-two years old, who has had

this condition practically since his birth. The lesions are confined to the hands and feet, the feet being more marked—the whole plantar surface being involved, and not just the part of the foot which touches the ground, as in ordinary keratosis plantaris. Here, as on the hands, the erythematous borders beyond the thickened area extends somewhat up on the dorsum. There is no hyperidrosis, both palms and soles being quite dry and horny.

Leprosy, Mixed Type. Presented by DR. WINFIELD.

The patient was a negro, aged twenty-six; a native of Charleston, N. C. He had lived for the past fifteen years in Brooklyn; the patient claims that the disease first made its appearance five years ago; in the shape of ring-worm-like patches on various parts of the body. There are anæsthetic patches over the buttocks, thighs and arms, atrophy of the muscles of the hand, with loss of the terminal phalanges of the right hand; anæsthesia of the hands is complete, the patient being unable to appreciate heat; the skin of the face is infiltrated, beginning to give lion-like appearance; there are also infiltrated patches over the shoulders where the suspenders rub; there are no decided leprotic nodules on any part of the body; wherever the skin is thickened it appears to be an infiltration.

DR. MORROW said that it was an interesting fact that cases of indigenous leprosy are very much more common than formerly. He had a case recently where the patient had lived in Georgia and South Carolina, and had then gone to San Antonio, Texas, and had never been outside of this country, and yet had developed a typical, characteristic leprosy. The clinical feature about the present case which interested him most was its marked resemblance to a case in a negro which occurred in California, who had never been outside of the country. He was born in Virginia and went from there to California. He had a peculiar corrugation of the facies, which is somewhat typical. You do not make out distinct nodular tumors, but they occur more in patches of infiltration. There are large patches on the neck, for instance, as large as the palm of the hand. There are no marked tubercles upon any part of the face. He had published a picture of the case referred to in the *New York Medical Journal* some years ago, and anyone looking at that would note the marked resemblance in the facies of the patient in California with the patient presented to-night.

The greater frequency with which we see leprosy here is rather significant, and it ought to be accepted as an indication for the necessity of greater care in excluding these cases, if possible. The disease is vastly more common in this city and in other parts of the country than is generally supposed. He has histories of quite a number of cases of indigenous leprosy, and had seen three patients within two years who had never been outside of this country.

DR. BRONSON said that the presenter of the case referred to it as being the only one he knew of as originating in this country. Many years ago he (Dr. Bronson) had presented to the Society, a man who was born in Germany at Cassel, and came to this country when a young man. He was a longshoreman in Hoboken for many years, and had never been away from this country since he first landed. When presented he showed very decided appearances of tubercular leprosy. He was then about forty years old and from all that could be learned the symp-

toms of the disease had appeared only a few years before. The subsequent history of the case was not known.

DR. TRIMBLE said that he had seen a case that developed in this country, although the woman came from Poland. The period of incubation was so long in some cases, that it was quite likely that patients infected in the Old Country would develop the disease after reaching America.

DR. WINFIELD said that he had neglected to state that this patient had a very profuse discharge from his nose. That was the first symptom which he noticed, then the anæsthesia in the hands. He has some infiltrated patches on the shoulders. Upon being questioned, he said that he had lived for eight or ten years next door to a leper who has been under Dr. Winfield's care for sixteen or seventeen years. This man lives next door to him on the same floor. It is a negro settlement, and two or three women in the house live indiscriminately in the different families. There may not be any connection between the two cases, but it would seem significant. The time is coming when the authorities of New York City should do something to segregate these cases. He agreed with what Dr. Morrow had said on this subject, and he himself knew of six or seven cases in Brooklyn.

Three Cases of Alopecia Areata Associated with Ametropia. Presented by DR. JEROME KINGSBURY.

Case I. W. G., thirty-one years of age; plumber. Strong and well-developed. Is married and the father of several children. Hair began to fall from patches about two years ago, the initial patch being on the left side of the scalp; soon all the scalp hair was lost, and later the eyebrows and eyelashes, as well as pubic and axillary hair.

Case II. P. N., fourteen years of age. General health was always good and no abnormalities detected regarding nervous system. Had alopecia of areate variety when seven years of age, and condition lasted three years. Present universal alopecia is of nearly five months' duration: It was very rapid, patient losing all of the hair during first month of the attack.

Case III. M. S., married woman, twenty-nine years of age. Seven years ago she had mild alopecia of areate variety; lasted about one year. A year and a-half ago hair began to fall from both sides of scalp, and soon a perfect band was formed around the scalp. Later, the top of scalp became affected and then the brow and lashes of right eye.

These cases were examined by Dr. Charles Ross Jackson, and all of the patients were found to have errors of refraction, co-existing with ocular muscular insufficiency.

DR. JACKSON questioned whether there was any connection between the condition of the eyes and the loss of hair. He supposed the patients had had the errors of refraction all their lives, while from the appearance of the scalp the hair condition is very recent. He thought it would be difficult to trace a connection between the errors of refraction and the loss of hair.

DR. KINGSBURY said that the type of alopecia areata where all the hair is lost is now generally believed to be due to a neuroses and consequently it seems justifiable to look for some reflex cause. He suggests that possibly the presence of eye strain might be of ætiological significance.

Case of Tinea Favosa (with Trichorrhexis Nodosa). Presented by DR. KINGSBURY.

The patient is sixteen years of age and is employed as a clerk in a lawyer's office. He is of Russian parentage, but was born in this country, as were all of his brothers and sisters. The family is in comfortable circumstances and appearances indicate that the boy is careful and particular regarding his person and toilet. He states that he has had the eruption in the scalp for three or four years, and possibly longer. He is very positive, however, that none of his brothers or sisters have any affection of the hair or scalp. There are several characteristic patches of favus in scalp. Considerable scaling is present and there are a number of areas of cicatricial alopecia. His hair is thick and is worn rather long to cover the disfiguring lesions. Hair around the patches is dry and lustreless and grayish node-like masses are found on many of the individual hairs. These lesions are distributed at irregular intervals, and in some hairs as many as five or six fractures can be found. This condition of the hair followed the application of a mercurial ointment. It was not present before treatment, and no "nodes" can be found, except in hairs around the favus patches. The case is a good illustration of the mechanical production of trichorrhexis nodosa in hair of impaired nutrition.

Pityriasis Rosea of Unusual Type. Presented by DR. J. A. FORDYCE.

The patient who presented the eruption, was a deaf-mute, twenty-four years old, a seamstress by occupation. She has scattered circinate lesions over the trunk and a few on the arms and thighs, with the pinkish periphery and buff-colored centre characteristic of pityriasis rosea. The primitive lesions have been present on the inner side of the thigh. The case was presented because of the unusually large and thickened patches.

THE NEW YORK DERMATOLOGICAL SOCIETY.

Regular Meeting, February 23, 1909.

Dr. H. H. WHITEHOUSE, President.

Bullous Lesions. Presented for diagnosis by DR. J. A. FORDYCE.

The patient was a girl, age nineteen, born in Germany; she has been in America fifteen years. Her father and mother are both living; she has two brothers younger than herself, both in good health.

Six years ago she had an inflammation of the right wrist, leaving the joint partially ankylosed. Three years ago she had indolent ulcerations on the hands and legs which lasted several months. For the past year she has had bullæ on the hands and wherever pressure was made

or after slight traumatism. After these bullæ healed the skin was left shiny and atrophic. This was especially noticeable over the palmar surface of the fingers. For three months she has had erosions on the dorsum and sides of the tongue rendering speaking painful. Her gums were red, swollen and bled when brushed. She now has bullæ filled with blood-stained serum on the palmar and dorsal surface of one hand, on the wrist and over the face.

The case was presented for diagnosis, the possibilities being pemphigus with co-incident lesions of the mouth and skin or an eruption due to mercury and potassium iodide.

DR. WINFIELD said that from the appearance of the mouth and gums he would be inclined to consider it a case of bullous iodide-eruption.

DRS. JACKSON, KLOTZ, and WHITEHOUSE agreed that the eruption might have been caused by drug administration.

DR. TRIMBLE suggested the possibility of epidermolysis bullosa. It was very late in life for such a condition to manifest itself, but from the history the lesions usually arose after some trauma or irritation of the skin.

DR. FORDYCE said he had seen the patient for the first time that day and had stated in the history when he presented her, all of the facts which he had been able to elicit. Although she affirmed that bullous lesions appeared on the hands after pressure or traumatism, she has lesions on the face which are evidently not due to that cause, so we could scarcely consider epidermolysis bullosa among the possibilities in diagnosis; chiefly because the lesions began so late in life. One of the most interesting features of the case was the coincidence of mucous membrane lesions with marked gingivitis, which could not be distinguished from that produced by mercury. This, however, occurred in certain conditions of the mouth independent of the administration of mercury and had been noted in pemphigus.

Case of Xanthoma. Presented by DR. JACKSON.

The patient was a boy three and a half years old. A year ago he had measles, as diagnosed by a Board of Health Inspector. As the measles subsided, the rash for which he was brought to the dispensary appeared. The eruption was a general one from the first. It was stated that some of the lesions have disappeared. The lesions were scattered over the whole body, both trunk and limbs. It consisted of papules varying in size from pin-head to split-pea. The larger ones were elevated, yellowish, wrinkled, and xanthoma-like in appearance. Everywhere there were brownish pigmented spots.

DR. HOLDER thought it a classical case of urticaria pigmentosa xanthelmoidea.

DR. FOX was inclined to consider it xanthoma rather than urticaria pigmentosa. There was very little irritation of the skin, and some of the tumors were more like xanthoma than like the lesions of urticaria pigmentosa.

DR. SHERWELL agreed with Dr. Fox, as did also Dr. Winfield.

DR. FORDYCE said that on a casual inspection the lesions had more of a resemblance to xanthoma than urticaria pigmentosa, but he doubted if an absolute diagnosis could be made by the clinical features alone. The microscope would clear up the question of diagnosis as xanthoma presents a fairly typical picture while urticaria pigmentosa shows enormous numbers of mast cells.

DR. WHITEHOUSE said that in another case he had seen the question of the differentiation of these two conditions came up—a case very similar to this one. The eruption left pigmented spots, but lacked the development of urticaria lesions. Most of the lesions were like xanthoma in color and appearance, and he was inclined in that case as in this to regard it as xanthoma rather than urticaria pigmentosa.

DR. JACKSON said that the description of urticaria pigmentosa, as given in text books, resembled this case in many features. When these tumors disappear they leave light-brown spots which are not generally seen in xanthoma. He had tried to have a piece examined, but a biopsy was refused.

DR. FOX said that in urticaria pigmentosa the spots are generally elevated, while in this case the pigmented spots are smooth, and look like stains, while the small tumors are of a yellowish-brown color.

Rosacea. Presented by DR. FOX.

The patient was seen at the clinic to-day for the first time. The question was whether the eruption upon the nose was a simple case of rosacea occurring in a syphilitic subject or was it a nodular syphilide.

DRS. SCHWARTZ, HOLDER and JACKSON thought it looked like a case of rosacea.

DR. KLOTZ said that there was quite a cluster of small scars, which were hardly deep enough for syphilis, but quite characteristic of rosacea.

DRS. DADE and KINGSBURY thought it was a case of syphilis.

DR. SHERWELL said that the lesion was rosaceous in appearance, but that condition is often found in connection with a case of syphilis, in that locality, and he was inclined to think it was syphilis, with that complication.

DR. FORDYCE said that looking at the nose alone he would make a diagnosis of rosacea. He had, however, seen nodular syphilis of the nose which resembled rosacea very closely; in fact a small nodular syphilide of the nose would be followed by a secondary rosacea. This case, however, he would consider one of rosacea and not syphilis.

DR. TRIMBLE said that there was no doubt about the rosacea, but he thought the lesion on the right side of the nose was syphilitic. The fact that it was unilateral would add some weight to the diagnosis of syphilis.

DR. WHITEHOUSE said that nodular syphilis of the nose and rosacea are extremely difficult to differentiate at times. He recalled a case which had been treated at the dispensary for four or five years for rosacea, until finally it developed a suspicious grouping, and the scars showed quite definitely when the diagnosis of syphilis was quite plain. This man has lesions on the side of the face and other places like acne lesions, but he was inclined to the diagnosis of syphilis with secondary nodular inflammation, which is not uncommon with syphilis in this locality.

DR. FOX said that the man had had syphilis, and the Wassermann reaction was positive, but the clinical appearance was that of pure rosacea. The veins on the tip of the nose and the general appearance is what is seen in rosacea. He considered it a case of pustular rosacea occurring in a syphilitic individual. In spite of the man's history, he would not make a diagnosis of syphilis, from what is seen at the present time, and he thought it could be cured by purely local treatment without using mercury.

Case for Diagnosis. Presented by DR. FOX.

The patient, a young woman, came to the clinic to-day and several

diagnoses were made of the condition—papular eczema, tubercular syphilide, etc. About a year ago she had an eruption for six months, which appeared all over the body. To-day, after a group of tubercles had been rubbed for a little, the patch looked like a papular eczema. Dr. Fox said he considered it a recurring papular syphilide of the corymbiform type.

Dr. KLOTZ did not think it was syphilis.

Dr. KINGSBURY said that the lesions in the right eyebrow inclined him to accept the diagnosis of syphilis.

Dr. SHERWELL said that argument in regard to rosacea would be more applicable to this case. Its chronicity was all that suggested syphilis to him. It seemed to be a papular eczema occurring in a syphilitic person.

Dr. FORDYCE said the case was a corymbiform syphilide. This grouping of lesions was met with at times in the first year of the diseases after the disappearance of the early secondaries.

Dr. Fox said that on examination the papules were found to be rather firm, and were not conical, as would be the case in eczema, and there was a tendency to form a circle or group, which is characteristic of the corymbiform syphilide. A year ago the patient had an early syphilitic eruption.

Case for Diagnosis. Presented by Dr. WHITEHOUSE.

The patient, a woman of sixty-eight, had an eruption eight years ago on the anterior surface of the legs. The eruption consisted of many small papules which were very itchy. She has had more or less of an eruption ever since, the condition getting better in summer and worse in the winter. Two or three years ago, it was first noticed in the scalp. The last attack, which has continued for five months, also affected the palms of the hands, and the inside of the mouth on the inner surface of the cheeks. The eruption is now generalized over the trunk, limbs, face and scalp, and is characterized by sparsely scattered scratched papules over the trunk, face and scalp, with a diffuse, dull-red, slightly scaly patch over the sacral region. Flat, angular, dull red papules invade the flexor aspect of the forearms and wrists, and inner surfaces of thighs; in places the papules are arranged in lines or streaks.

Dr. Fox agreed with the diagnosis of lichen planus. The linear arrangement present, though rare, is very characteristic when it does appear, the transverse linear lesions sometimes become reticulated, enclosing healthy tissue. He has seen this well marked in several instances.

Dr. WHITEHOUSE said that he had been inclined to diagnose the case as lichen planus, but the larger number of scattered papules in the scalp and the intense suffering from the lesions in this region were rather unusual.

Case of Late Gummatous Syphilis with Periostitis. Presented by Dr. WHITEHOUSE.

Patient A. B., aged ten. Family history negative. Mother and father always well, mother never had any miscarriages. There were four children in the family, one fourteen, another twelve, the patient aged ten, and

a baby of a year and a half. At the age of four months the patient had a general eczema (?) which the doctor cured in four days. At the age of four years, she had lumps in neck, both front and back. At five, the right knee began to swell. It was diagnosed as a sprain, and treated as such for six weeks, and then the other knee having swelled, both were put in plaster for three months. Patient then wore braces for ten months. The ulceration of the right knee developed four years ago, one year after it first began to bother her. She has been treated surgically ever since in the evident belief that the trouble was tubercular. Two years ago the lesions appeared on her face, first on the forehead, next in front of the right ear, and then the one near the chin. The periostitis involving lower third of left ulnar and first left metacarpal bone and the right tibia also developed about two years ago. Almost the entire circumference of the right knee, five or six inches in width, has been the seat of an ulcerating process, the center now cicatrized, but the periphery exhibiting several ulcerating gummata. There is a serpiginous ulcerating patch $1\frac{1}{2} \times 1$ inch on right cheek, in front of the ear, healed at upper part; a smooth slightly depressed scar, one inch in diameter in center of forehead, near border of the hair and a small group of hard, dull red papules half an inch in diameter on right side of chin. The periosteum in regions mentioned shows the usual deformity.

DR. FORDYCE said the case was undoubtedly one of syphilis, but in these cases it was difficult to say from the objective features alone whether the disease was acquired early in life or hereditary.

DR. FOX said that at first he had been inclined to regard the lesions on the carpal bone as tuberculosis rather than syphilis, though he now agreed with the diagnosis of syphilis. He did not think that in acquired syphilis in a child there were the deep ulcerations seen in hereditary syphilis, and the lesions do not run so severe a course as in adults.

DR. SHERWELL thought it was a case of hereditary syphilis. He recalled a case of an extremely healthy looking boy of about four years of age, who was brought to him as a young infant, with pronounced congenital syphilis, and who comes every month or two for observation and treatment. When first seen the deep lesions were very marked, and there was a tremendous glandular involvement, mucous membrane ulcerations, dactylitis, and periostitis over long bones.

DR. KLOTZ told of a similar case, seen last spring in the German Hospital, of diffuse gummatous infiltration with deep ulcers and necrotic tissue over both knees, in a boy twelve years of age. Here the bones in both knees were affected. No history could be obtained as to the origin of the disease, but as a symmetrical affection of both knees is especially frequent in hereditary syphilis, heredity was very probable. The child was treated with ten injections of salicylate of mercury of about one-half the usual dose and was cured.

DR. JACKSON agreed with the diagnosis of congenital syphilis. The lesions of the skin are the same as we often see in late syphilis in adults.

DR. WHITEHOUSE said that the points brought out in discussion in regard to the acquired or hereditary character of the trouble were confirmatory of the case being hereditary in type. The improvement in one week's time under treatment by inunctions of mercury alone was very marked. Wassermann's test had given a positive reaction.

Lichen Planus and Spinulosis. Presented by DR. FORDYCE.

The patient was a woman about forty-five. Her eruption had existed for nine months, was located chiefly on the extensor surface of the legs below the knees. It was made up of ordinary flat lichen planus lesions and by numerous follicular ones capped by a pin-head sized scale. This scale could be very easily picked off of the lesions with the finger nail and left a minute depression behind. If these spinous lesions had been found in the location of a pityriasis rubra pilaris they could be mistaken for that affection. In fact, the co-existence of pointed and flat lesions suggested to Dr. Fordyce the possibility that cases of this kind may have given rise to the discussion regarding the concomitance of lichen rubra pilaris and lichen ruber acuminatus. Histologically, all of the lesions presented the features of lichen planus and there was no doubt in his mind as to the nature of the affection.

Extensive Case of Lichen Planus. Presented by DR. JACKSON.

The patient was a man thirty-one years old, who stated that the disease showed itself first on the left foot about four months ago. About two months ago it appeared on the penis, hands, and other parts of the body. When shown, the lesions were on the wrists, palms, penis, scrotum, legs, feet, and the soles of the feet, also on the mucous membrane of the mouth. The insides of the cheeks were completely covered with fine white papules.

DR. JACKSON said that he had rarely seen lichen planus on the palms, and had never seen it on the soles of the feet. In this case the lesions both on the palms and soles were unusually large, hard and elevated.

DR. WINFIELD said that he had never seen the condition on the soles, but had seen it on the hands.

DR. FOX said that it was very common on the back of the hands, and he had seen it on the palms in one or two instances, but never so marked as this case.

DR. HOLDER said that he had seen cases with lesions on the soles and palms, but had never seen one with such large lesions as this.

DR. WHITEHOUSE said that it was not so uncommon to see lichen planus on the palms, but he had never seen it on the soles. This was a classical case, and the lesions were unusually well marked, differing from anything that he had ever seen. When on the palms the lesions are usually little horny points, almost like corns, while these are large and plaque-like.

Sclerodactylia. Presented by DR. FORDYCE.

The patient was a woman about twenty-four, a native of Russia, by occupation a seamstress. She stated that the affection had lasted about seven years. The skin over the dorsal surfaces of the fingers and hands was hard, immovable, tightly drawn, white and cold to the feel. The terminal phalanges were atrophic, the nails were broken off and deformed. She said that at times her hands became purple and then white. A condition of scleroderma was also noted about her face, especially the forehead.

Case for Diagnosis. Presented by DR. FORDYCE.

The patient was a woman about thirty years of age, born in Ireland. She gave a history of repeated attacks of a scaling eruption affecting chiefly the elbows, knees, forearms, legs, hands and feet. She also stated that the nails had become affected and had been shed repeatedly during the time she has had this eruption. She also had a papillomatous condition of both nipples which is covered by cretaceous scales. When shown she presented none of the characteristic lesions of psoriasis. The nails, however, were the site of marked subungual keratosis, were broken off and otherwise deformed.

DR. JACKSON said that it was apparently an eczema. It was very difficult to tell from the appearance of nails whether psoriasis or eczema is present when there are no other symptoms of either disease.

DR. KINGSBURY regarded it as a case of psoriasis. He had seen the patient several weeks ago and there were then squamous lesions on the back of the hands, forearms, elbows, and legs.

DR. WHITEHOUSE said that he saw nothing that suggested psoriasis outside of the nail condition, and he considered it a case of eczema with an exaggerated development of the horny layers.

DR. FOX thought the atrophic condition of the nails might be due to a parasite, and be independent of the condition of the hands and nipples.

THE PHILADELPHIA DERMATOLOGICAL SOCIETY

The regular monthly meeting of the Philadelphia Dermatological Society was held at the Medico-Chirurgical Hospital, on Monday evening, January 18, 1909, at 8:30 o'clock. Dr. M. B. Hartzell presiding.

Raynaud's Disease, An Atypical Case of. Presented by DR. HARTZELL.

The patient was of the female sex and twenty-four years of age; the present attack started two years ago. At the present time the hands and the feet, particularly the fingers and the toes, are bluish-red in color, and exhibit atrophic, bluish-white patches; ulcerative areas are also noted on the tips of the fingers and the toes. At times the extremities become of a bluish-black color. The hands and the feet are at times painful, and smarting and burning are severe. The case is to be reported in detail later. Dr. Hartzell said he thought it was an anomalous case of Raynaud's disease. He also referred to a case in which practically the same condition existed, but in which the ulnar nerve had been accidentally severed. The case under observation had some of the characteristics of erythromelalgia.

DR. SCHAMBERG said he thought there was some resemblance to a severe type of pernio.

A Child With a Generalized Eruption, Consisting of Pigmented Patches. Presented by DR. KNOWLES.

The patient was a girl of twelve years and the condition had originally started when she was but four. There were numerous pinhead to pea-sized, freckle-like patches on the trunk and the extremities; some of the areas were silver-dollar and larger. The face was only sparsely involved. The skin was smooth over the pigmented spots and there were no capillary changes. This case is to be reported in detail. Dr. Knowles said that he wanted to thank Dr. Davis for the privilege of exhibiting the patient. The case was presented because of the resemblance in pigmentation to xeroderma pigmentosum, but this disease could be excluded because the face was only slightly attacked, the lesions were smooth, and the capillaries were not dilated.

DR. SCHAMBERG said he thought the present case was related to the anomalous papillary naevi cases, which develop late in life.

DR. STELWAGON said he thought the lesions would not undergo a malignant change.

Trichorrhexis Nodosa, A Case of. Presented by DR. SCHAMBERG.

The patient was a girl of six years, and according to the history had had the condition since birth. The hair is short all over the scalp, but particularly so posteriorly. The hair is very dry, brittle, and lusterless, and there is considerable splitting of the ends of the hairs. Several hairs were examined microscopically and the breaking of the hair was found to be incomplete, more of the type of a "green-stick-fracture;" there was no longitudinal splitting. The microscope proved that the fracture occurred at the point where a node had developed on the shaft of the hair.

Alopecia Areata, in the Same Family, Two Cases of. Presented by DR. SCHAMBERG.

The two boys presented were nine and eleven years of age. Four years ago a bald area first appeared on the posterior surface of the scalp of the older boy; this patch became palm-sized and remained stationary; two years later a silver-dollar-sized, somewhat triangular patch appeared on the right parietal region. Somewhat less than two years ago the disease appeared in the younger brother, an absolutely bald spot developing on the left parietal region, silver-dollar in size; two other patches have since appeared on the right side of the scalp. These two boys slept together, and it was very suspicious of contagion by direct contact, as the patches on the parietal regions were contiguous to each other. There were six other children in the family free from the disease.

Lupus Erythematosus, A Curious Case of. Presented by DR. HARTZELL.

The patient was a male of thirty-six years, prematurely grey, and of a very florid complexion. The disease had originally started twenty years before, at the age of sixteen. It had been for some years slowly progressive, but recently had been almost stationary. The scalp, both cheeks, the bridge of the nose, and the ears were involved. The patches were from one-half dollar to palm-size, those on the face and the scalp were of the usual type, with the reddish surface and the patulous gland openings, with the superficial scale dipping into these openings. The curious part of the case was that the outer portion of the ears had been eaten away by the disease, the helix and the lobule of each ear having been destroyed; the edge being ragged-looking, showing numerous indentations.

DR. HARTZELL said that the case had been, at one time, under Jamieson's care in Glasgow.

DR. STELWAGON said he thought the ears resembled markedly an epitheliomatous condition.

DR. SCHAMBERG said he thought some of the patches resembled lupus vulgaris. He also said that he had recently had a case under his care in which lupus erythematosus followed immediately after severe sunburn, thus suggesting this dermatitis as at least predisposing to the disease.

DR. STELWAGON said he thought that the severe sunburn had very little to do with the start of erythematous lupus, as in his experience the disease developed more frequently in women, who were less often exposed to the direct rays of the sun.

DR. HARTZELL said that he thought traumatism of some kind seemed to be the start of a great many cases of erythematous lupus.

Parasitic Eczema, An Extensive Case of. Presented by DR. STELWAGON.

The patient was a woman of forty years, robust in appearance, and with a history of continuously good health. The present condition originated two months ago with the appearance of small lesions on the forearms, the dorsal surface of the arms, and the legs. These lesions have grown progressively larger until they are now dime to one-quarter-dollar size, very sharply marginate, almost absolutely symmetrical, somewhat raised, the follicles prominent, reddish-yellow in color, irregularly circinate, infiltrated, and oozing; there is a tendency to grouping. The trunk is free. There are fully fifty lesions, all of the same type, of the same size, and persistent. Pruritus is markedly present. There was also a large and typical patch of eczema rubrum on the right lower leg.

DR. STELWAGON said he thought the pseudo-follicular involvement resembled the deep type of tinea. He also said he thought if any form of eczema deserved the name of parasitic, the present case did.

DR. HARTZELL referred to a case that Dr. Knowles and himself had recently seen, which resembled markedly a tinea, but was an eczema, no fungus having been found.

Erythema Induratum, An Atypical Case of. Presented by DR. SCHAMBERG.

The patient was a small, slender negress of twenty-seven years; she weighed but ninety-eight pounds. Her family history was negative as to tuberculosis, and she apparently was unattacked. Last summer bluish-red swellings appeared on the lower part of both legs, these persisted, and new lesions appeared. According to her history these lesions stayed practically stationary for some weeks when they "dried up," after a short interval new lesions again appeared, and have now persisted for some months. There are about four dozen lesions in all, bluish-red in color, slightly raised, hazel-nut to pigeon-egg size, slightly tender and nodose to the touch. The anterior surface of the legs are more involved than the posterior, and the lower leg itself rather than the ankle. Rheumatic pains were complained of. She was compelled to stand a great deal, as she was a cook by occupation.

Those present agreed that it was probably a case of erythema induratum, but all remarked on the resemblance of the lesions to those found in erythema nodosum.

Alopecia Areata, A Case of. Presented by DR. PFAHLER.

The patient was a male of thirty and had had this condition for eight years. There were about a dozen patches in all, chiefly on the posterior surface of the scalp, and dime in size. Several of these patches were still absolutely denuded of hair, in others however the hair had returned but was gray in color.

Those present agreed with the diagnosis.

A Case for Diagnosis. Presented by DR. SCHAMBERG.

The patient was a negro male of twenty-six years, and was exhibited because of an irregular, circumscribed, three-cent-piece sized, whitish-pink patch, on the lateral and inferior surface of the tongue. This patch had a slightly elevated border. According to the history the present lesion had first appeared some years before.

DR. SCHAMBERG referred to a parasymphilitic glossitis which is, made worse by highly flavored foods and drinks.

DR. PFAHLER said he thought the patch two years ago, when he had seen the case, was white in color, and his diagnosis at that time had been leucoplakia.

DR. SCHAMBERG said that he thought that syphilis tended toward the development of these patches, although not syphilitic. He said that the history of syphilis in this case was negative.

DR. STELWAGON suggested a rough tooth as a likely cause.

Papulo-tubercular Syphilis of a Precocious Type, A Case of. Presented by DR. SCHAMBERG.

The patient was a male of twenty-one years, and according to his history the initial lesion appeared on the penis about eight months ago. According to the patient this is his first eruption, but evidently there was an original faint macular eruption which he did not notice. The present outbreak is on the back, the extensor surface of the arms, the anterior surface of the legs and the buttocks. The lesions are almost all in groups. The individual lesions are from pea to dime sized, reddish in color, slightly scaly, infiltrated and feel deep down in the skin; some of the lesions are annular. The present eruption has lasted for over five weeks. The face and the anterior portion of the trunk are free. The patient is noticeably hoarse; there is evidently a nodule on the vocal cords. There is a marked pharyngitis and general glandular enlargement.

DR. STELWAGON said he thought the eruption should be classed under the tubercular type.

DR. HARTZELL said that if a man smokes at all, very little can be done with him in treating syphilis.

DR. STELWAGON said that alcohol makes the patient vulnerable to endarteritis.

FRANK CROZIER KNOWLES, M. D., *Reporter.*

MANHATTAN DERMATOLOGICAL SOCIETY

71st Regular Meeting, October 2nd, 1908.

A. BLEIMAN, M. D. President

Sarcoma Cutis. Presented by DR. W. S. GOTTHEIL.

Mr. P. C., Porto Rican, forty-eight years old. For two and one-half years past has suffered from the presence of a number of "lumps" in the skin, mostly in the soles and borders of his feet, though he has noticed one or two in other places. Otherwise the patient is healthy. Of extremely dark complexion and very hairy, so that color changes are not very plain. He complains of itching and of pain in these tumors; chief complaint is tenderness and pain occasioned by walking and standing.

On the soles of both feet and on their outer margins are a number of deep-seated and not well-defined indurated masses; none apparently larger than a large bean. There are one or two similar masses on the dorsum of the feet and one on about the middle of the left thigh. Those on the soles are slightly pinkish and quite tender; appear to be attached to the skin. The tumor of the thigh shows no color in the deeply pig-

mented integument; is tender and shows the same characters as those on the feet. There is no history nor any signs of syphilis present.

On September 26, one of these tumors was excised and examined. The microscopical picture was that of a fibro-sarcoma, situated in the subcutaneous tissue just beneath the epidermis.

Dermatitis Herpetiformis, Vesicular Type. Presented by DR. W. S. GOTTHEIL.

Miss C. J., aged twenty. Has had her dermal lesions confined to the backs of the hands for six years past. Was free from March to October, 1907, when she was under no treatment at all. For past three years, she has worked in a paint store, and handled oils, benzine, turpentine, lime, etc. When she left the store in October, 1907, her hands were free, but in three weeks they were as badly affected as before, and have remained so ever since.

September 16, 1908. The eruption is entirely confined, as it always has been, to the backs of the hands; no other dermal lesions. There are several various sized erythematous and thickened patches with scratch marks and the remains of vesicles scattered through them. At the margins of these lesions the remains of vesicles are very distinct. The patient's history of this attack, which is precisely similar to scores of others that she has had during the past six years, is very definite. In a healthy skin area, or possibly in one that has lately been the seat of disease, she has itching so marked as to be very noticeable. A day later vesicles appear at this spot, always several, but usually not more than a dozen. They are so minute that they are hardly visible at first; in a day or so more they grow larger, but never get bigger than a French pea. Possibly this is because the itching is so great that she invariably scratches them open, when a clear, watery serum exudes. After opening they appear as watery, red spots, and itch less. The vesicles always come in groups, and each group takes a week to run its course; then they dry up, leaving a reddened and thickened area that persists for some time. New groups of vesicles may appear in the old and thickened areas, or in skin that has been unaffected for a long time, and is apparently normal; but often the patches spread centrifugally, by the appearance of small groups of vesicles at the margins of healing patches and just beyond them.

September 24th. During the past week there has been a marked outbreak. Almost the entire back of the right hand is covered by a large, roughened and erythematous patch, at the margins and even in the centres of which are numerous groups of new lesions. Most of these have already been scratched open; but in a number of places there are distinct groups of vesicular lesions, varying in size from a pinhead to a small pea. The back of her left hand shows isolated circular lesions of the same kind and here also recent and unbroken efflorescences are to

be seen. There are some lesions on the finger tips, which have been occasionally though rarely affected during the course of the disease.

It is interesting to note, in confirmation of the patient's statements, that she was able to point out to the presenter several areas on the backs of the hands and on the fingers that showed only a very faint erythema of the healthy skin or no change at all in the thickened and erythematous patches, which had begun to itch that day. Careful examination of these areas with a lense revealed the presence of numbers of extremely minute vesicles at these places, puncture of which elicited the exudation of a minute droplet of clear serum.

Generalized Xanthoma Planum in a Child. Presented by DR. ROBERT ABRAHAMS.

Harry K., three and one-half years old, of Russian parents, born in New York. Family history negative. Patient's history is as follows: At the age of two and one-half he had an attack of scarlet fever. During the period of desquamation, to quote the father, "small pin point pimples appeared scattered over the body. After a short time these pimples flattened out and became yellowish in color. More of the same kind appeared and kept on coming." At present the eruption involves the entire integument, the scalp and mucous membranes excepted. The cheeks are sparsely covered. The chin, neck, upper and lower extremities, thorax, abdomen, groins and glutei, including the cleft of the nates, are the seat of abundant, small and large citron-yellow patches; some are flat and others are slightly elevated. No subjective symptoms, and no constitutional disturbances at the time these lesions appeared. The largest of the patches are found around the nates and deltoid region, and measure about two-thirds of an inch in diameter. The skin in these areas is smooth and velvety. Urinalysis is negative.

Fungating Epithelioma of the Left Cheek. Presented by DR. ROBERT ABRAHAMS.

Mrs. H., seventy years old. For many years had numerous flat warts on face and other parts of the body. About a year ago several of the warts on the left cheek began to grow in size. At present there is a raised fungating mass, about two inches in length by one and one-half inches in width. Bleeds readily; the middle and upper parts are covered by a dirty crust. The cervical and maxillary glands are not enlarged.

Late Hereditary Syphilis with Exostosis and Gummata. Presented by DR. C. A. KINCH.

Annie, aged eleven, father and mother both living, apparently healthy. No history of syphilis in either parent.

The patient presents on the forehead an oval cicatrix 2 x 5 cm. in

size, ulcerated at its lower border; another lesion at the angle of the right lower jaw, about the same size and covered by a black crust. Radiating scars are seen at both angles of the mouth. At the lower end of the left ulna and on the second metacarpal bone of the same hand are small exostoses. A large one is found on the right tibia. Nearly encircling the right knee joint and extending about ten cm. up and down the limb, is a large ulcerating gumma. This lesion has been present for the last eight months, having been treated for tuberculosis of the skin. Under the administration of mercury the general condition and all the lesions are improving.

Acne Necrotica Limited to the Legs. Presented by DR. E. L. COCKS.

Miss E. B., seamstress, age seventeen, American. For the past three years, just preceding the warm weather, pea-sized, slightly raised itchy spots appeared on the legs. The lesions at present are indurated, red, slightly raised, pea-sized papules. The more recent lesions have necrotic centers, and several have already cicatrized. These are easily distinguished from last year's crop by the increased pigmentation and surrounding erythema still present. The body is entirely free. Between the gluteal fold and knee the older lesions predominate. From the knee to the ankle of each leg there are about twenty papules in different stages present. Only a few are pierced by hairs.

DR. GOTTHEIL would not consider this a case of acne necrotica, but one of tuberculo-pustular syphiloderm. Considers the scars as the result of one eruption.

DRS. WEISS and PAROUNAGIAN were in favor of one of the tuberculides and not of syphilis.

Result of X-Ray Treatment in Serpiginous Epithelioma of Fore-head and Face. Presented by DR. ROBERT ABRAHAM.

Male, aged sixty-seven, Bohemian. This case was presented at the May meeting. Since then he was submitted to the X-rays with following result: The lesions have entirely epidermized. The infiltration present at that time is still present.

Lupus Erythematosus. Presented by DR. E. W. DITTRICH.

Mrs. M. L., aged twenty-six, Roumanian. About six years ago a red scaly spot appeared on the lobe of the right ear. One year later, shortly after her marriage on becoming pregnant, pink spots appeared on both cheeks, somewhat less scaly than the ones on the ear. She immediately sought medical advice and was subjected to all manner of treatment; from mild indifferent applications to curetting, without any relief. The process continued to spread. Four years ago the nose became involved and one year later the eyebrows were similarly affected. When patient came under the observation of the presenter she showed the following condition: On the cheek were more or less circumscribed

lesions, two inches in diameter, with somewhat elevated and tumified margins, atrophic centers, very slight sealing, violaceous at the center and bright red along the margins, the nose was diffusely reddened, scaly, and had a number of longitudinal stripes of scar tissue. The eyebrows were also reddened and somewhat scaly. An area on the left side was treated with carbon dioxide snow, while the lesion on the right side was and is being treated by Hollander's method. That part treated with the snow shows a smooth superficial scar, and an apparent arrest of the progress. That area treated with the double strength of iodine shows marked improvement. The case is presented to show the comparative results obtained by the above methods of treatment.

DR. SATENSTEIN suggested that in using the snow to go somewhat beyond the apparent lesion. From the pathology of lupus erythematosus we know that the condition we see on the surface is the end result and the extension of the process is deep down in the subcutaneous tissue, hence sufficient application of the snow in order to destroy this deep process.

Epithelioma of the Face. Presented by DR. E. W. DITTRICH.

Mr. W. S. C., aged forty-three, engineer, American. Present trouble began as a small abrasion on the left side of the face along the margin of the lower jaw. The condition was aggravated by shaving and finally formed into a painless ulcer. When first seen by the presenter it was an irregular shaped shallow ulcer, with a grey glistening base, the edges in part rolled up, in part decidedly pearly. The entire mass was firm, not painful and attached to the skin and movable on the deeper parts. The patient was put on antisyphilitic treatment with no results. With the exhibition of small doses of Fowler's solution and white precipitate locally, epidermization has taken place. At present has a painless mass attached to the skin.

Onychomycosis Favosa. Presented by DR. GOTTHEIL.

Mr. G. E. H., aged thirty-five, accountant, referred to me by Dr. Ponce de Leon of Havana. Has never had any skin affection, save spots on his body twenty-two years ago, said to have been ringworm; has never been in contact with any case of skin disease in recent years, nor with animal skins. Three years ago the nails of both index fingers began to "die," as he expresses it; that is, began to get yellowish at their free ends and separate from their beds. Gradually this discoloration and separation spread further back, and two or three other finger nails became affected. Latterly one or two toe nails have become involved. Complete separation of any nail plate has never occurred; the process advances slowly till half or two-thirds of the nail plate is affected, and then seems to remain stationary. The detached nail plate is more or less brittle, and is raised up from the bed by an accumulation of greyish-yellow material. For cosmetic reasons the patient cuts away and scrapes

out as much of the detached plate and the subungual accumulations as possible. There has never been any pain or any signs of infection, inflammation, etc. For the first year there was no medical treatment. Then for a year Dr. Lainé treated the nails with salves, without effect. During the past year Dr. Ponce de Leon, under the diagnosis of parasitic disease, has had the patient immerse the fingers for fifteen minutes every night in a very hot ten per cent. potassium permanganate solution, allowing it to dry in and remain on over night, and removing it in the morning by means of an oxalic acid solution. During the first two months of this treatment there seemed to be improvement; but latterly there has been none at all.

Examination, October 1, 1908. All the fingers of both hands are more or less affected, as are also the nails of the second and third toes of the right foot. Thumb nails and the other toe nails unaffected. All show similar lesions in different degrees. The anterior border of the nail plate becomes yellow and begins to be lifted from its bed by a crumbly yellowish-grey accumulation below it. The change progresses in a more or less irregular line towards the lunula, and as it goes on the patient removes the thickened and brittle nail and the material beneath it. In some of the nails about half the nail plate is gone; in others, more recently affected the change involves only a narrow band along the free border of the nail. The portions of nail plate remaining in the most markedly affected fingers has lost its smoothness and becomes irregular and pitted. The little finger nail of the right hand shows a little above the lunula a small greyish-white spot, which is gradually advancing as the nail grows; and one or two other nails show darker small spots that are advancing in the same way.

The beginning at the free border of the nails, the gradual and slow growth backwards, the discoloration, detachment, thickening, and brittleness of the nail plate, the peculiar accumulations under the affected area, the painlessness, the yellow spots, lead me to make a clinical diagnosis of onychomycosis favosa, rather than of trichophytosis. From a therapeutic point of view of course the differentiation is of little importance. I propose to first try the affect of parasiticide applications, sublimate, alcohol, etc. If that proves ineffective, I am inclined to recommend the method of Pellizzari, which Dubreuilh found useful in five cases. It consists in setting up a purulent inflammation of the nail bed and root and extrusion of the entire plate. The entire nail and its wall is painted twice daily with a mixture of equal parts of sweet almond oil and pyrogallol, wearing a rubber finger cap between times. As soon as suppuration sets in an antiseptic dressing is applied. Radical surgical treatment is rejected by almost all those experienced in this affection, on account of the obstinate ulcerations that remain, the deformed nails that result, and the frequency of relapses thereafter.

M. B. PAROUNAGIAN, M. D., *Secretary.*

NEW YORK ACADEMY OF MEDICINE.

Section on Dermatology.

Stated Meeting, held January 5, 1909.

DR. SIGMUND POLLITZER in the Chair.

Epithelioma of the Glans Penis. Presented by DR. HOWARD FOX.

The patient is sixty-two years old, born in Ireland, a retired policeman. He admits having contracted gonorrhœa, but absolutely denies syphilis. About four years ago a "sore" appeared on the dorsum of the foot, which was cured within four months by local applications. Somewhat less than two years ago he noticed a scab on the under surface of the glans penis. This fell off and was replaced by another scab and persistently refused to heal. About six months ago he noticed a "pimple" on the upper surface of the glans. This was scratched and a sore soon resulted which has gradually increased in size till at present it is as large as a quarter. Subjective symptoms are slight. The ulcer bleeds very easily from slight trauma. The patient is well nourished, corpulent, and in good health. On the lower surface of the glans penis is a small warty crust the size of a pea. The entire upper surface is converted into a red glazed discharging ulcer, with sharply circumscribed and firm borders. The destruction of tissue is already considerable. There is no apparent enlargement of the inguinal lymphatic glands. He has been put upon antisyphilitic treatment during the past two weeks and has shown no improvement whatever. He has received three injections of salicylate of mercury, forty grains of potassium iodide three times a day and mercurial ointment locally.*

DR. ROBINSON considered that apart from the age of the patient and location and duration of the disease, the sharp limitation, the firmness, the waxy surface, especially at the peripheral portion and the erosive appearance of the degenerative surface all pointed to an epitheliomatous formation of a malignant character. It seemed to him to admit of only one diagnosis, namely, carcinoma. If there was any doubt as to the diagnosis, although he did not hesitate in this case to make a positive one, then a microscopical examination should be made and not a therapeutic test, as the case was one demanding prompt treatment.

DR. CLARK said that he believed this to be a case of syphilis, basing his diagnosis on the presence of several separate lesions with punched out centres, and the absence of hard rolled border and of glandular involvement.

DR. LAPOWSKI said that he agreed with Dr. Clark, and called attention to the marks on the edge of the tongue as confirmatory. He considered this a tubercular syphilide rather than a gumma, and said that he had seen a tubercular syphilide lasting many years without extensive sloughing.

DR. POLLITZER agreed with the diagnosis. He did not believe a gumma could last two years without producing greater destruction of tissue than was here shown. The marks on the tongue he believed were caused by rough teeth.

* The Wassermann test made after the patient was shown was negative. Noguchi's butyric acid test was also negative.

Cheilitis Glandularis. Presented by DR. HOWARD FOX.

The patient is a woman forty years old, domestic, born in Ireland. As long as she can remember her lower lip has been rather large and thick, the enlargement always remaining constant in size. She often suffers from "cold sore" upon the lower lip which lasts a week or less. She also frequently notices a little scaling on the lower lip which she has to "cut off." Occasionally in the morning the lips become glued together. She has never noticed anything like pus coming from the lip. There are no subjective symptoms and the lesion is not considered of any importance by the patient. It was accidentally discovered during a visit to the Skin and Cancer Hospital for an eczema affecting the legs and ears. Examination shows both lips to be pale, the lower lip moderately swollen. The vermilion border presents about twenty pin-point to small pin-head sized, slightly raised lesions having an opening in the centre. The lesions are made more prominent by firm pressure on the lip, and by this means a small amount of mucoid material can be expressed from the little orifices. The upper lip is normal in appearance as is also the mucous membrane of the mouth and throat. The tongue is badly coated. There is a subacute eczema of the leg and behind the ears. The general health is poor.

DR. LAPOWSKI said that the patient had dermatitis seborrhoica on the scalp and behind the ears, and that the condition of the lip might be due to the same cause.

DR. POLLITZER said that this name was first used by the surgeon Volkman; the cases described by him were suppurative, with painful swelling of the lip, and the fluid which exuded from the glandular orifices contained pus. He asked if pus cells had ever been found in the fluid from the present case.

DR. HOWARD FOX, closing the discussion, said that the exudation had always appeared clear. He could not say whether it was entirely free from pus cells, but promised to make a microscopical examination to determine this point.

Tuberculide under Treatment with Tuberculin. Presented by DR. A. SCHUYLER CLARK.

The patient came under observation one year ago, and history taken at that time reads as follows: Female, twenty years old, Irish, single. Family history negative. No history of tuberculosis. Previous history: Is generally well; occasionally has a cold, which clears up quickly. Had typhoid fever seven years ago and when getting well noticed for the first time small papules behind the ears which would break down and drop off, leaving little white scars. A little later papules appeared on the extensor surfaces of the arms and on the knees. These lasted for two years, and then entirely disappeared when she came over to this country, except for an occasional pimple on the arms which always left scars and lasted about a month. One year later they again appeared on the legs and behind the ears and more abundantly on the arms, showing a tendency to come in crops, lasting from three to six weeks and regularly leaving little pitted scars. These papules were then seen in abund-

ance on the arms and legs, some with necrotic centres, on a red base, and also many small pitted scars like former lesions. Behind the ears the skin seemed to be stretched and shiny, and beneath it, in groups suggestive of syphilis, are numerous small pin papules, two or three of which have necrosed. On the forehead are three cartilaginous swellings, beneath the skin and not attached to the periosteum, the size of small marbles and not very tender. The overlaying skin appears a little reddened. The patient shows no other sign of disease and her functions are normal. She gave a very positive reaction to the ophthalmo-tuberculin test, one-half per cent. solution. She was given a thorough anti-syphilitic treatment over several months. Various tonics with milk and cod-liver oil were tried and various antiseptic ointments and lotions were applied. A rigorous diet with intestinal antisepsis was prescribed and carefully followed out. After one year of such care without any improvement she was put on the tuberculin and told to live a careful, ordinary life and she now shows such a marked improvement after tuberculin injections for three months that I present her for your consideration. Beginning with 0.0001 mg. of Trudeau's T. E., she has gradually reached 0.03 mg. at a dose with no inconvenience and with resulting improvement in her condition.

DR. LAPOWSKI said that he agreed with the diagnosis, and that this patient presented the same lesions as the patients presented by him with the same diagnosis. He added that improvement under tuberculin injections was no proof of the tuberculous nature of the disease, as these patients often improve or recover under any treatment, or even none at all.

DR. KINGSBURY said that this patient had once improved greatly under mixed treatment, and again after a long vacation in the country, but that the improvement in the last two months was greater than at any time before.

DR. CLARK, closing the discussion, said that he presented this as a case of necrotic granuloma improving under tuberculin injections. The patient was still a long way from a cure, but the improvement was greater than under other methods, and the treatment would be continued and the result reported.

Dermatitis Herpetiformis. Presented by DR. HOWARD FOX.

The patient is a Chinaman of intelligence, thirty-five years old, a waiter by occupation. He came to this country nineteen years ago. Two years later the present affection began, and has continued more or less interruptedly up to the present time. The eruption is worse at some times than at others, being generally severe in the winter. Itching varies greatly, being worse at night and at times almost intolerable. The patient states that some of the lesions contain yellow and at times whitish fluid. He has never suffered from any other disease to his knowledge and has always enjoyed fairly good health. The eruption consists chiefly of a severe and extensive punctate, scarring of the greater portion of the body. There is also more or less ill-defined pigmentation. There is no general adenopathy. On the trunk, anteriorly, are found a number of

excoriated papules, showing more or less decided grouping. An interesting feature of the case is the striking resemblance to lepra presented by the face at first glance. This is due to the presence of several nodules about the forehead, and to pigmentation of the face. The eyebrows are also somewhat sparse. He gives, however, no personal or family history of lepra. The nodules on closer examination are plainly inflammatory. There are no characteristic macules on the body, no changes in the ulnar nerve, no atrophic changes in the hands, etc. The urine shows a trace of albumin but no indican.

DR. ROBINSON agreed with the diagnosis on account of the character and grouped arrangement of the lesions over the abdomen; nevertheless the diagnosis was made more from long familiarity with the course of the diseases in some cases than from any actual and characteristic lesions present, as the patient shows more of the results of the disease than of the active process.

DR. CLARK said that he had presented a similar case before the Section, in which arsenic was the only drug which gave relief, but could not be continued on account of arsenical neuritis. In that case there was no excess of indican, and a purely vegetable diet lead to no improvement, while a strict milk diet gave great relief. He suggested, therefore, that the condition might be due to a faulty metabolism of carbohydrates, rather than of proteids.

DR. KINGSBURY said that when he saw this patient at the City Hospital several years ago, the eruption was much more characteristic of dermatitis herpetiformis than at the present time.

DR. POLLITZER said that while the aspect of the patient suggested leprosy, there was no real evidence of that disease. The lumps were all œdematous or inflammatory, not hard and nodular, and the thinning of the eyebrows was not a recent process, but one of long standing and was not uncommon in Orientals.

Universal Small Papular Syphilide. Presented by DR. POLLITZER.

The patient is a waiter, twenty-four years old, single; no history of syphilis. The eruption appeared seven weeks ago on the thighs and lower abdomen and in two weeks attained its present distribution. He was first seen four weeks ago. The entire surface, saving only the head and neck, and the soles, were covered with a papular eruption, distinctly arranged in many places in small circles and circinate lines. There was no tendency to a special distribution of the lesions; they were equally numerous on the flexor and the extensor surfaces. The trunk was literally covered with a perfectly uniform sheet of the small follicular papules. On the corpus penis there were a half dozen lesions; on each palm, about twenty small dry scaling papules. There were a few on the fingers. The lesions themselves consisted of small, firm, deep-red, conical papules located for the most part at the orifices of the follicles. All the lymph glands (the inguinal, axillary, epitrochlear, and occipital) were enlarged and painless. Subjectively there was a very slight degree of itching; there were no scar marks. At the present time all the general characters of the eruption remain unchanged, except that there is a moderate increase in the number of lesions and that some of the

papules, notably on the wrists, hands and penis show a tendency to vesiculation, and on the back and shoulders there are a few scratch marks. The patient has received three injections of salicylate of mercury.

DR. HOWARD FOX said that he had recently photographed a case of miliary papular syphilide from Dr. Jackson's clinic which showed as extensive lesions as Dr. Pollitzer's case. There were, however, no evidences whatever of scratching. Dr. Fox considered the case in question to be one of scabies.

DR. ROBINSON said that there were evidences of more than one disease present. On the leg there are areas of general catarrhal dermatitis—an eczema, on the hands and wrists lesions quite similar to those of scabies, whilst over the greater part of the body a miliary syphilide exists. Many of these small papules on the body resemble the old lichen simplex—a folliculitis—a follicular eczema and may be in connection with the scabies if that is present. A microscopical examination for acari would aid greatly in the diagnosis. He is inclined to agree with Dr. Pollitzer that a miliary syphilide is the correct diagnosis for the numerous grouped miliary lesions.

DR. LAPOWSKI said that this was a case of scabies. The slight oozing from the papules in the palms, the arrangement of the lesions there in lines rather than in circles, the dryness of the lesions on the penis, scrotum and buttocks, all spoke for scabies and against syphilis. In extensive cases of scabies on the penis and thighs, there is usually a second infection present. The absence of any eruption on face, forehead and scalp speaks against syphilis, as in universal syphilis papulosa those regions are usually invaded.

DR. TRIMBLE said that he thought more importance should be attached to the color of the eruption. Although the size of some of the papules and a certain tendency toward grouping might make one think of lues, the lesions were too brilliantly red for that disease. The lesions on the palms, in the web of the fingers, and on the penis, were quite characteristic of scabies, and he thought the case one of that nature, with a coexisting dermatitis of some kind.

DR. POLLITZER, closing the discussion, said that when the patient was first seen four weeks ago, the lesions were fewer in number, and better grouped. The lesions on the palms looked especially characteristic, minute papules with slight scaling at the apex. There was no evidence of itching. He believed the red color which was so striking was a temporary condition due to work and the warm weather, the patient being a waiter in a nearby restaurant, which he had just left to come to the meeting. The diagnosis of scabies did not account for the hundreds of small round papular lesions on the chest and back. He still maintained his diagnosis of syphilis, but promised to try the effect of anti-scabetic treatment.

REPORTS OF CASES PREVIOUSLY PRESENTED.

DR. LAPOWSKI reported that a biopsy made on the case of Graves' disease with telangiectases, presented November 10, 1908, proved that the angioma was not malignant.

DR. LAPOWSKI reported that the case reported by him last month as atrophica maculosa cutis proved on biopsy to be Recklinghausen's disease with atrophy of skin and corresponded to a case reported by Dr. Polak in 1906 in the *Archiv. f. Derm. & Syphilis*.

BOOK REVIEWS

LE LUPUS ERYTHEMATEUX AIGU D'EMBLEE ETUDE CLINIQUE

Par le docteur George Pernet. De la Faculté de Médecine de Paris; Assistant de la Clinique des Maladies Cutanées, University College Hospital, Londres; Chargé de Conférences Dermatologiques à la Policlinique et au Collège des Gradués en Médecine de Londres; Ancien Pathologiste de l'Hôpital des Maladies Cutanées de Blackfriars, Londres; Membre de la Société Royale de Médecine de Londres, Section de Dermatologie; Membre Correspondent de la Société Française de Dermatologie et de Syphilographie, etc., etc. Jules Rousset, Paris, 1908.

This small volume of 135 pages is devoted to the discussion of acute erythematous lupus. The author first reports a case where the primary outbreak resembled impetiginous eczema. This was soon followed by typical lupus lesions on the hands and an eruption on the body resembling lichen scrofulosorum. Albuminuria was slight, but the constitutional symptoms were severe and death occurred three months after the onset of the disease. He then reviews the literature and discusses and compares the various reported cases with his own. The work closes with chapters on the diagnosis, prognosis, ætiology and treatment. A bibliography of sixty references is appended. This book like most of the foreign works is bound in paper.

LE MASSAGE PLASTIQUE DANS LES DERMATOSES DE LA FACE. SES INDICATIONS: SES RESULTATS. (AVEC ONZE PHOTOGRAPHIES, SEPT GRAPHIQUES ET UN SCHEME)

Par le docteur Raoul Leroy. Alex. Coccoz, Paris, 1908.

This book of 190 pages deals with a subject that has received very little attention by ethical dermatologists in this country. The author gives a review of the literature and a bibliography. Considerable space is devoted to technique and a report of cases. After perusing the book one is impressed with the fact that most of the diseases treated could have been cured much quicker by other methods while cosmetic defects such as obesity, wrinkles, etc., if amenable to treatment by massage might be handled by a trained nurse or masseuse. The author has given serious attention to the possibilities of scientific massage and the book, which is paper bound and costs but eighty cents, may be of service to those who desire to interest themselves in this subject.

LES INJECTIONS MERCURIELLES INTRAMUSCULAIRES DANS LE TRAITEMENT DE LA SYPHILIS.

Par le docteur A. Lévy-Bing. Masson et Cie, Paris, 1909.

Dr. Lévy-Bing in this monograph has produced a useful guide for those who desire to employ the muscular injections of mercury in the treatment of syphilis. It is written in his usual terse and clear style. He discusses all phases of the subject, including the various salts employed, the dangers, the advantages, the technique, etc. Although not failing to give due credit to other workers he does not append a bibliography and this is to be regretted for with it the work would be very complete.

THERAPEUTIQUE CLINIQUE DE LA SYPHILIS

Par E. Emery, Médecin de Saint-Lazare. Ancien Chef de Clinique a l'Hôpital Saint-Louis. Et A. Chatin, Médecin des Eaux d'Uriage, Masson et Cie, Paris, 1909.

The authors have written a book of 636 pages which proves to be a very complete practical treatise on the management of syphilis. Such works are always interesting to the syphilographer, but this one should be especially valuable as a guide to the general practitioner. The book is divided into two parts. The first part, comprising 388 pages, deals with hygiene, the antisyphilitic remedies and their administration, while the second part is devoted to the local treatment of the cutaneous manifestations and to the management of the principal specific affections of the internal organs. Considerable care has been exercised in the preparation of the various subjects which are presented in a clear and unbiased manner. The book is bound in paper and unlike most foreign works, it is indexed.

G. M. M.

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SYSTEMIC ACTINOMYCOSIS, WITH CASE REPORT.

By HENRY ROCKWELL VARNEY, M. D.

Clinical Professor and Lecturer on Dermatology and Syphilology in the Detroit College of Medicine, Detroit, Michigan.

ACTINOMYCOSIS of the skin cannot be considered a common dermatosis. From the reported cases, numbering 1094 (Ruhrah, *Annals of Surgery*, Vol. XXX, Nos. 4-5-6) only two per cent. of this number involved the skin, while fifty-six per cent. were of the head and neck. Therefore, the skin showed a superior resistance to this organism as compared with the mucous membrane and the lung structure. When the skin is infected, it is usually secondary to involvement of structures underneath.

In January, 1908, there came under my clinical supervision, a Swede who was a section hand on the railroad. He was of large frame, being six feet tall, weighed 183 pounds, and was very muscular. He presented the following history: While in Seattle, Washington, in February, 1907, patient noticed a small, hard nodule on the right jaw. Very little attention was given to the growth, thinking it was from a tooth, as the teeth in that area of the jaw had been diseased for some time. In April, three months later, another nodule developed under the jaw, directly underneath the growth in the mouth. This second nodule grew much more rapidly than the first. Both continued to increase in size. At this time he sought medical aid and the growth under the jaw was opened.

In September, the left leg, in the middle third, began to swell and feel stiff. No pain. Patient was able to walk many miles a day. This area became bluish-red, more swollen and gradually girdled the leg in a belt about five inches wide, and in six weeks from its first appearance, the skin broke over the shin. In a very short time two more openings occurred on the calf of the leg.

Upon examination, in January, 1908, when first seen, he presented fourteen active cutaneous lesions of the cheeks and neck. The lesions were of varying size, elevated, keloidal, reddened

growths, all of which were discharging from one or more sinuses, a sero-purulent fluid in which were the characteristic, white, gritty granules.

The lesion caused no discomfort, and with all this diseased condition, there was no lymphatic enlargement. The jaw was much enlarged by a bony growth all along the angle, extending well under. Immovable and all the appearances of osteosarcoma.

Clinically, the condition was one that could be easily recognized as actinomycosis, and upon obtaining further history, that of badly decayed teeth, the patient was in the habit of chewing wheat kernels whenever he could obtain them.

The patient presented an anæmic look and felt weak. Urine normal. Complained of night sweats and cough, especially upon lying down. Great deal of thick, tenacious mucous was expectorated in the morning.

Physical examination of the chest presented the following: Thorax is long, narrow, and of moderate depth. Epigastric angle acute. Clavicles prominent. Expansion is slight, being almost entirely confined to the lower part of the thorax. Very little movement of upper thoracic zone. Apex on left, two centimeters above clavicle; on right, $1\frac{1}{2}$ centimeters above clavicle. Left apex below, extending to the second rib. Right apex shows dullness, extending to third rib, below which there is diminished resonance. Right apex behind, on level of second spine; left the same. There is diminished resonance of both apices down to the level of the spine of the scapula; resonance good below. Breath sounds in right supra-scapular region as follows—inspiration harsh, expiration loud and prolonged, numerous sub-crepitant râles over entire area. On the left the vesicular breath is diminished. Expiration is prolonged and râles are more numerous than on the right. There is weak vesicular breath over the remainder of the back. Whispered and spoken voice are accentuated over the dull areas. Anteriorly, the vesicular is very weak on left, being partly obscured by the transmission of the first and second heart sounds through dull area. On the right there is broncho-vesicular breathing over dull area with harsh expiration. Numerous râles, crepitant and sub-crepitant, all over front of thorax.

In sitting position, apex of the heart is seen as a quick, fluttering impulse in the fifth intercostal space $3\frac{1}{2}$ inches from the median line in left fourth intercostal space; right edge of the heart is at the left edge of the sternum. First sound of the heart is clear



FIG. 1.



FIG. 2.

and distinct. Second pulmonic, faintly heard. The second pulmonic at the second rib is reduplicated. Aortic second sound of moderate intensity, clear and regular.

Ray fungus in the sputum. Microscopic examination of the material obtained from the sinuses on the neck and face and also of the leg and the sputum showed numerous actinomyces.

Patient made some improvement under treatment, but being of a roving nature, soon left the city and was lost to further study.

MULTIPLE DACTYLITIS SYPHILITICA (PHALANGITIS HEREDO-SYPHILITICA, HOCHSINGER) IN AN INFANT.

DR. HERMANN G. KLOTZ, New York.

PHYLLIS B., came first under my observation on April twenty-seventh, 1906. She was then ten months old, a perfectly well developed and healthy looking, exceptionally bright, jolly and amiable baby. Both parents give the impression of young, healthy individuals without any stigmata of syphilis or tuberculosis and without any history of such a disease occurring in the parents or grandparents of the child. She was the first child, born on time; the mother states that at birth the nose appeared slightly sunken in and snuffles was observed, not sufficiently, however, to call for any treatment, or to leave any marks. She was brought up on Borden's sweetened condensed milk and never showed signs of disease until about two months ago, when it was observed that several fingers and one toe began to swell without any changes in the skin or sensitiveness on pressure. The child was then examined by a well-known authority on children's diseases, who prescribed one-sixth of a grain of calomel with ferr. carbon. sacchar. four times a day. After four weeks no apparent change had taken place in the swelling, although the same had not increased; however, the treatment was changed to one grain of the carbonate of guaiacol four times a day, apparently on the suspicion of the tuberculous character of the trouble. Before the new treatment was initiated the child was brought to my office.

The first phalanges of both index fingers, the thumb and middle finger of the left hand appeared more or less thickened without any changes in the skin and the other soft parts over the swelling, the increase in volume being restricted to the bones, although the skin was tightly stretched; the indices, particularly the right one, showed the greatest involvement, the circumference being enlarged to more than twice the natural size. The second toe of the right foot was similarly affected, the first phalanx being considerably enlarged, but the overlying skin looked red like a scald and was covered with scales. On the left side of the trunk, about

in the mamillary line, slightly above the free margin of the ribs, a circumscribed, about quarter-sized swelling was noticed, covered by bluish-red skin, distinctly fluctuating, not sensitive to the touch or on pressure and prominent about one-half inch above the surrounding skin which did not show the slightest change from the normal conditions. The tumor was easily movable over the ribs. There were no signs present of rickets or of any constitutional disease; the swelling of the thorax had been noticed about six weeks previously to the visit to my office.

Principally with regard to the latter affection, which threatened to break down and form an ulcer very soon, at the same time, in order to make the most rapid test of the effectiveness of anti-syphilitic, i. e., mercurial treatment, I immediately made an injection of about one-sixth of the contents of a syringe holding exactly one cubic centimeter of a ten per cent. suspension of calomel-à-vapeur in lanoline and olive oil (1:14), i. e., a trifle more than one-fourth of a grain of calomel, in the gluteal muscles. Four days later, on April twenty-sixth, considerable improvement was already noticeable on all the affected places; the fluctuating swelling on the thorax appeared flattened down a good deal, but still showed distinct fluctuation and the bluish-red color; on the toe the redness and scaliness had almost disappeared and here and on all the affected fingers the skin felt less tensely stretched over the thickened bones. The injection had left a rather hard lump somewhat below the site of the insertion of the needle, but had not caused the slightest disturbance of the general health. A second injection containing about one-third of a grain of calomel was applied to the other side of the buttocks.

On May third improvement was distinctly visible on all the affected places; the swelling of all the phalanges was greatly reduced, the fluctuating swelling over the ribs so far reduced in size that only a minute amount of fluid could be detected. The nodule formed from the first injection had almost disappeared, the second injection had also caused a subcutaneous node, somewhat painful on pressure, but without any tendency to abscess formation. However, since all danger of the breaking down of the probably gummatous affection of the skin of the thorax had passed off and the effectiveness of mercury on the bone affections had been sufficiently demonstrated, also in consideration of the local disturbances caused by the injections and of the inconvenience of bringing the child regularly to my office on account of the rather remote residence

in the upper Bronx, no further injections were given. Inunctions of calomelol ointment (Heyden) were ordered, about one-half gramm (eight grains) a day, with the usual omission of one day every week.

On May twelfth continued improvement was noted; on the thorax all swelling had disappeared, leaving only a slightly bluish, scaling spot. The toe was of nearly natural size, but underneath a hard, horny, lentil-sized nodule had formed; the fingers all showed decrease of the thickening of the bones, the least pronounced that of the right index. The general health of the child remained absolutely undisturbed, although she had developed her first tooth.

The calomelol ointment was regularly continued until July sixth without the slightest disagreeable consequences; besides the two lower incisors, two of the upper teeth had meanwhile appeared without any trouble. On the affected toe hardly any increase in size of the bone could be demonstrated any longer, the hard scaly formation on the volar aspect of the same had been detached without leaving any scar; a similar nodule had been formed on the volar aspect of the right index finger, but had also nearly disappeared again. On all the affected fingers the skin could be freely moved over the bones and showed the usual designs of the surface; the natural contours of the phalanges could everywhere be distinctly marked.

From July sixth to the end of the year treatment was continued in the form of inunctions of five drops daily of a mixture of one part of iothion with two parts of olive oil; larger doses seemed to cause local as well as general systemic irritation, and therefore were not pushed. Since January thirteenth, 1907, the inunctions of the calomelol ointment have been taken up again and continued through the spring. At that time the changes of the bones had practically all been reduced to normal conditions and volume, only the peripheral end of the phalanx of the right index was still somewhat thickened. The soft parts on this finger are freely movable over the bone, but appear slightly thickened and rather affluent owing to the shrinkage of the bone, but the physiological increase of the phalanx is likely to completely fill out the vacuum in time. The affected fingers are freely movable and are used without the slightest impediment; the general health of the child has been excellent throughout; her physical and mental development has progressed without the slightest irregularity; she has her molar teeth, she walks, talks, laughs, eats, drinks and sleeps like any healthy child up to the present time.

It is hardly necessary to explain why I preferred external applications of mercury and iodide to internal administration besides for the reason of their greater effectiveness, particularly in the beginning, when the hot season was near. The case clearly shows how dangerous it is to make a test of mercurial treatment with such an insufficient preparation and dose as one-sixth grain of calomel internally and bears witness to the intense action of an intramuscular injection of the same drug. The two remedies employed, calomel ointment and iothion, acted in a very satisfactory manner.

Cases like the one here reported have been well known and have been clearly described by R. W. Taylor and others, as a rule under the collective name of dactylitis syphilitica. As in these cases only the bones are affected without any participation of the soft portions, Lewin has already proposed the name of phalangitis. Hochsinger in his exhaustive book: *Studien über die Hereditäre Syphilis* (Second Part, Leipzig & Wien, Franz Deuticke, 1904) exclusively uses the term: phalangitis heredosyphilitica for this clinical picture. Our patient represented all the clinical features of this phalangitis in so typical form that there could hardly arise any doubt about the diagnosis even if the presence of the gummatous swelling of the skin of the thorax had not afforded further proof. Hochsinger found the phalangitis in a large number of cases concomitant with the first skin eruption and therefore considers it an early symptom of hereditary syphilis. In the present case the absence of any history or any stigmata on the side of the parents together with the general condition of the child suggest the possibility of atavic heredity.

A CASE OF PEMPHIGUS—DEATH IN COLLAPSE.

By HERMANN G. KLOTZ, M. D., New York.

MR. B. E., sixty-two years of age, born in Germany, a furniture dealer, came to my office on September sixteenth, 1906, at the advice of his family physician on account of an eruption of the skin, ostensibly a rebellious eczema. The patient appeared fairly well nourished, of small stature; he stated that about thirty years ago, soon after his marriage, he had one of the testicles removed for causes unknown to him; otherwise he had always enjoyed fair health. I was informed later on, that the patient had been in favorable financial circumstances, but within the last years had suffered considerable financial losses which had had a very depressing influence on his mind. Since about two months he had been troubled by the eruption of small blisters, at first on the face below the eyes and on the nose which would rapidly dry up into thin crusts. These would drop off after a few days, leaving the surface red but dry; under some, however, the skin would remain moist for a short time and then form another crust. Since about four weeks blisters began to appear on the sternal and intrascapular regions, on the scrotum, and, widely scattered, on the extremities, always without itching or any other sensation.

This was also the condition which the patient presented on the occasion of his first visit. The bullæ were all of moderate size, hardly exceeding that of a fresh pea, they appeared on perfectly intact skin, without any redness or swelling, mostly single, here and there in groups together with thin crusts of a light brownish color, or with circumscribed dull red spots. The mucous membranes were intact with the exception of the septum narium, which on the left side showed an abrasion covered by a rather thick crust which obstructed the entrance of the nose. The patient was otherwise in good health, all bodily functions being normally performed, particularly those of the kidneys; no sugar in urine; but he complained of feeling very weak.

As I have never been able to convince myself of a beneficial action of arsenic in cases of pemphigus, I prescribed internally ich-

thyol on account of its decidedly tonic effect and with regard to its contracting influence on the blood vessels, fifteen to twenty drops of a mixture of one part of ichthyol and two parts of water, to be taken three times a day; locally a lotion of boric acid, carbolic acid and zinc oxide was applied.

On October first the general condition was not materially improved, locally, however, the number of new blebs formed had been decidedly smaller with the tendency to drying up rapidly except on the chest, neck and axillæ where numerous clusters of small blebs had appeared. The nasal opening was eroded on both sides and more or less obstructed by crusts.

On October twenty-second the local eruption had considerably spread, particularly affecting both eyelids on the mucous as well as on the cutaneous surface and causing a copious sero-purulent discharge. New eruptions had taken place on the back of the scalp, over the sternum, between the scapulæ, around the navel, on the scrotum and the internal aspect of both thighs; the nares and the upper lip were thickly covered with crusts.

On November fourth the condition was about the same; scrotum and thighs somewhat improved, but axillæ and eyes worse, the general feeling of weakness was not diminished. Ichthyol, which had been taken up to ten drops of the drug itself without any disagreeable signs, was discontinued and quinine, iron and strychnia given instead.

On November eighteenth the patient had entered the German Hospital in about the same condition. His general state had not been so good since the ichthyol had been stopped and at the patient's request it was taken up again, while locally a solution of acetate of aluminium (Buroŭ's solution) was applied. Within the next few days the local symptoms seemed to improve somewhat, probably due to the better facilities for cleaning the lesions and applying the solutions; the patient's general condition, including that of the urine and the pulse, appeared fairly good, but he complained of the intense feeling of weakness. On November twenty-second a few lesions were noticed in the mouth, particularly on the right side beyond the last molar.

November twenty-fourth, in the morning, while preparing to enter a bath, the patient suddenly had a severe collapse from which he recovered only after the most energetic working of the house physicians. In the evening he had a temperature of 102 Fahrenheit, the same he had on entering the hospital, but the next morning the

temperature was normal, the skin all over the body felt naturally warm, the pulse was regular and fairly strong. This condition continued through the next few days without any material change; locally the distress was very great because a large part of the body, particularly the axillæ, the scrotum and the thighs were denuded of epidermis over a wide extent so that the patient was clamoring for a bath. On November twenty-seventh, therefore, a bath was prepared in a bathtub which was placed immediately next to the bed, and all possible precautions were taken and preparations made to meet a possible recurrence of the collapse. After entering the bath the patient did not show any signs of increased weakness, but gave expression to the comfort which he experienced, when suddenly he collapsed and all efforts to revive him proved futile. No autopsy could be obtained.

The textbooks offer very little information with regard to the conditions which are finally responsible for the exitus letalis in pemphigus; collapse has not been mentioned and seems to be uncommon. A gradually developing marasmus, sometimes aggravated by copious diarrhea, is the more common cause. The age of the patient, the early participation of the mucous membranes and the intense general weakness rendered the prognosis a bad one from the beginning. As in pemphigus protracted and even permanent baths usually are of the greatest benefit and are excellently borne by the patients, it seemed justifiable to comply with the patient's demand under circumstances which eliminated all exertion.

FULGURATION—THE LOCAL APPLICATION OF A CURRENT OF HIGH FREQUENCY BY MEANS OF A POINTED METALLIC ELECTRODE—ITS USE IN DERMATOLOGY.

By GEORGE M. MacKEE, M. D., New York.

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IN recent months considerable interest has been excited among the members of the medical profession in an electrotherapeutic procedure designated by the term fulguration. This word, which was suggested by Pozzi and employed by de Keating-Hart, is not a satisfactory title, for it fails to signify any specific form of treatment. It would seem that the high frequency caustic spark as advanced by Piffard might be a more significant term.

As applied to high frequency treatment fulguration may be understood to consist of the local application of the spark by means of an insulated pointed metallic electrode. Employed in this manner the spark is either mildly or strongly escharotic, caustic or destructive according to the strength of current, length of spark and duration of the séance.

That the high frequency current was capable of destroying tissue was demonstrated by Oudin, Bissérié and Freund soon after d'Arsonval's original communications (*Radiotherapy*, Freund, p. 112). In 1900 at the International Congress of Electrology and Radiology held in Paris, and again in 1903 before the Academy of Medicine of the same city, J. A. Riviére gave an account of his experiments with the high frequency spark in the treatment of small malignant and benign neoplasms. In this country one of the first physicians to employ, or at least to report the use of the high frequency current in this manner, was Dr. H. G. Piffard. In his instructive paper entitled "The d'Arsonval and other high frequency currents, what they are and what they will do," appearing in the *New York Medical Journal* for June 16, 1906, the following words may be found: "Malignant or semi-malignant lesions of the skin, epithelioma, lupus, lupus erythematosus and

sarcomata, when of small size and conveniently located, have been destroyed in many instances by the caustic spark from a metallic electrode connected to one terminal of a coil transformer, the other terminal being grounded or connected to the person of the patient. This little operation is exceedingly painful for the moment, but as it lasts for but two or three seconds at the utmost it is usually borne without flinching. There are many reports in confirmation of this, chiefly in France, where it was first employed." Dr. Piffard employs the transformer which bears his name, attaching the conducting cord to one terminal of its secondary coil. The high potential energy is obtained from a Ruhmkorff coil fitted with an electrolytic interrupter. In the *Archives of Physiological Therapy*, for September, 1906, there appeared an interesting article by Dr. T. J. Rankin having the following title: "High frequency currents in the treatment of small benign neoplasms and hypertrophies of the skin." He employs an Oudin type of resonator energized by an induction coil carrying from one and three-quarters to three amperes through the primary and interrupted by a mercury jet break. The electrode used was a piece of pointed copper wire insulated to the point and inserted into an insulated handle. He employed the method for the removal of warts, freckles, pigmentary and vascular nævi, chloasma, etc., and in the majority of cases very satisfactory results were obtained. Following an exaggerated account in the *New York Times*, of de Keating-Hart's work there appeared an article by Dr. Finly R. Cook in the *Medical Record* for December 21, 1907, under the title of "The high frequency metallic discharge; its possibilities." He employs the treatment in cases of enlarged tonsils, internal and external hæmorrhoids, cutaneous affections, etc., with exceedingly gratifying results. The most important report from the pen of de Keating-Hart was in the *Archives d'Électricité Médicale* for May 25, 1908. His work has been mainly, if not entirely, in connection with the treatment of cancer, of which more will be said later.

As is well known, there are several ways in which the high frequency current may be locally employed. In the first place there is the effluve obtained from a resonator or transformer by holding the electrode, connected therewith, far enough from the skin to prevent the passage of sparks. Then there is the well-known high frequency spark obtained from the same apparatus, but where the current is allowed to pass through electrodes of divers shapes and material. Usually glass vacuum bulbs or glass bulbs filled with

carbon are placed in contact with or held close to the skin so that a multitude of fine sparks bombard the part. Such treatment, even when considerable current is used is not painful and the local effect is one of stimulation with the production of hyperæmia. To destroy tissue with such electrodes would require a prolonged application and they are rarely if ever employed for this purpose. If a moderate current is applied to the skin by means of a pointed insulated metallic electrode the immediate effect is a pronounced vasoconstriction, evidenced by a blanching of the tissue. This in turn is soon followed by a severe hyperæmia and if the part is vascular an exudation of serum will occur. A scab usually forms in a day or two which separates in about a week without leaving a visible scar unless the treatment has been far too vigorous. By employing a heavy current instantaneous necrosis may be obtained. From a fraction of a second to several minutes may be required to produce the above phenomena depending, of course, upon the intensity of the discharge. The pain accompanying this operation is severe, but as it only lasts but a second or two it is generally well borne. Some patients complain very little, while others appear to suffer considerably. The amount of pain probably depends upon the temperament of the patient and upon the tissue treated. It may be stated here that a few physicians use the d'Arsonval current for this purpose, that is, the current taken directly from the solenoid, one pole being attached to the patient and the other to the electrode, but the current from a resonator or transformer appears to be more frequently employed. It is also possible to employ the current taken directly from the static machine or Ruhmkorff coil, that is, a high potential current, but the effect will be found to be quite different from that obtained by the use of the high frequency spark. The unipolar spark from the former current is short, sharp, more painful and appears to act mainly through the agency of heat. Scarring is also more likely to be produced. The bipolar discharge produces painful muscular contractions and is entirely unsuitable for the purpose.

The apparatus that I use for this work consists of a twelve-inch Ruhmkorff coil, a Wehnelt interrupter and a Piffard hyperstatic transformer. Occasionally I energize the transformer with a static machine and sometimes a mechanical instead of an electrolytic break is used. The former combination is to be preferred, however, because the output is practically unlimited. One may, of course, utilize a Tesla coil, other types of coil transformers, the

Oudin resonator or modifications thereof. The electrode should be made of metal, very small or pointed and insulated to the end so as to confine the spark to a restricted area. One can utilize a piece of wire insulated with heavy rubber, but greater satisfaction will be obtained by the use of the special instruments as devised by Drs. H. F. Waite, de Keating-Hart, Dieffenbach and others.

DISEASES IN WHICH THE HIGH FREQUENCY CAUSTIC SPARK MAY BE
OF SERVICE.

CARUNCLES. In Dr. Piffard's paper, previously quoted, the following words may be found: "I know of no better means of aborting a commencing caruncle, as it does in a moment that which nature requires several days or a week to accomplish. In other words the cocci are instantly destroyed together with the follicular wall and the leucocytes have simply a small inert necrotic plug to deal with, which they usually do with but little accompanying inflammatory action." My experience compels me to agree with the above quotation. The treatment will almost always abort a beginning caruncle if applied during the early stages of its development. It is of especial value in those individuals who are suffering from a "run of boils" and if the patient will have the treatment applied on the day that he notices the first symptoms the results are usually positive. Although I have seen rapid resolution follow a treatment even after a small pocket had formed, it is advisable to spark the tumor before pus formation sets in. My favorite technique is to place the electrode so that the sparks will act upon the centre of the boil and use a very strong current, from ten to thirty ampères, for a fraction of a second. The electrode is connected to one terminal of the secondary coil of the transformer and a Wehnelt interrupter breaks the current. If it is impossible to obtain such a strong current one may ground the other terminal of the transformer or connect it to the person of the patient and apply the sparks for several seconds or even several minutes. After one treatment the further development of the process is checked and usually all that can be noticed on the following day is slight swelling, a small scab and, as a rule, there is complete freedom from pain. Furthermore the treatment, not infrequently, appears to inhibit the formation of new caruncles. This observation, however, may have to be modified after the treatment of a larger number of cases.

ACNE. This method of treatment is sometimes of value in the treatment of the indurated pustules associated with acne. It is

advisable to have the patient call twice weekly when each beginning lesion should receive one instantaneous application. In the treatment of this disease it is not only necessary to check the process, but to do all in our power to prevent the disfiguring scars which are so often produced by the deep-seated pustules. Fulguration, if properly employed, does not produce a visible cicatrix and by aborting the individual lesion before tissue destruction occurs, resolution is promoted before scarring is produced. It is, of course, to be understood that other measures, both local and general, are necessary to control the disease.

IN RHINOPHYMA OR HYPERTROPHIC ROSACEA this method of treatment has given superior results. In such cases it is preferable to employ a mild or moderate current for several seconds over an area about the size of a twenty-five-cent-piece at each sitting. A severe reaction follows the treatment, accompanied by a serous exudate and on the next day a thick yellow crust will form which separates in about a week leaving a marked improvement over the previous condition. Not infrequently several applications are required before the maximum amount of benefit is obtained.

KELOIDS and SCARS. We have in the X-ray a more or less specific measure for the treatment of true keloids and when the growth is extensive it should be the method of election. But in small keloids and ordinary scars fulguration will not infrequently be productive of very pleasing effects. The application should be about the same as in the treatment of hypertrophic rosacea and it is usually impossible to obtain the maximum amount of benefit in one treatment. In this connection Rankin mentions an interesting case which he treated in this manner. To quote from his writings, "It is possible that the high frequency current will prove useful in the treatment of small scars. Its action here was noted while treating a port wine mark involving the forehead and temple. A physician had previously attempted to remove the nœvus by the use of an acid, a little of the acid being applied along one edge of the nœvus as a test; an objectionable scar resulted and the use of the acid was abandoned. While treating the nœvus the spark was applied to the scar with the same intensity as that used over the nœvus and when the resulting scab came off the scar showed a lessening of its former glistening white appearance. A second application was made and after this, when healing was completed, the white scar was completely obliterated. The least pressure over the area would drive the blood out and, for a moment, the glistening white

appearance would prevail, showing that there had been but little destruction of the scar tissue, but rather an extension of capillaries through or over the scar." I am thoroughly in accord with Rankin as regards the treatment of scars, but in keloid, although I confess to having obtained satisfactory results in a few instances, I consider such a procedure as being undesirable. Like surgical ablation, the application of liquefied air or the carbon dioxide snow and other escharotics the high frequency caustic spark produces traumatism which is too often followed not only by a return of the keloidal tissue, but by a lesion which is larger and more difficult to cure than the original tumor.

PATCHES OF LICHEN PLANUS AND OF CHRONIC ECZEMA, especially when associated with considerable thickening or lichenification of the skin, may be greatly benefited by one or two vigorous treatments. Charles Warrenne Allen, in his book which was published in 1904, reported excellent results following the sparking of such lesions by means of a pointed carbon electrode.

Very pleasing results may be obtained in cases of XANTHOMA, particularly xanthoma planum. I prefer to treat these lesions by one or two very powerful instantaneous applications. When the lesions are situated upon the eyelids care must be taken not to obtain a too pronounced reaction, because the resulting œdema may cause considerable alarm. In this connection it may be mentioned that Allen (*Medical Record*, Sept. 23, 1905) employed the high frequency spark by means of a carbon electrode in the treatment of Fordyce's disease and also in xanthoma in the neighborhood of the eyes, with very prompt and good results.

INDOLENT ULCERS. The high frequency spark offers a very excellent means of stimulating chronic and sluggish leg ulcers (*Jour. Cutan. Dis.*, Dec., 1905). The current should be comparatively mild and applied until a copious exudate is obtained. Several treatments may be required before the desired result is effected. In these cases a blunt carbon electrode is preferable except when applying the spark to indurated borders.

CUTANEOUS TUBERCULOSIS, LUPUS ERYTHEMATOSUS, ETC. The process of fulguration has been combined advantageously with the X-ray in the treatment of scrofuloderma and supurating tuberculous glands. In ulcerative and hypertrophic lupus vulgaris the Röntgen ray is usually quite efficacious, but if tubercles are left in situ after healing has occurred or in cases where the disease is manifested mainly by atrophy and the presence of apple-jelly nod-

ules fulguration, by destroying the starting point of ulceration, will be found very useful. I have noticed, however, that these nodules are not readily destroyed by the caustic spark and to accomplish the desired result very powerful applications are required. On the other hand if the treatment has been thoroughly applied the ultimate result is exceedingly gratifying. Considered from an esthetic or cosmetic standpoint it is quite equal if not superior to any other method, and in the few cases that I have treated the permanency of the apparent cure may be stated in the same terms. The ease with which the treatment can be applied is another point in its favor. In fact the only objection to the method is the pain which after all is no worse and it is of considerably shorter duration than that which accompanies many of the more recognized measures.

In LUPUS ERYTHEMATOSUS this treatment has given very pleasing results. Scarring is less and the effect appears to be quite as permanent as when liquefied air or carbon dioxide snow is used. The immediate pain is greater, but there is less œdema and swelling. The number of applications, however, is usually much greater and I have had cases which did not respond as well to the former as to the latter method. Taking everything into consideration I am inclined to believe that the freezing process is the better of the two in the treatment of this disease, although one may obtain results in individual cases that cannot be duplicated by the latter method. So far I have not noticed any material difference in the permanency of result between the two treatments.

In TUBERCULOSIS VERRUCOSA CUTIS the lesion should be thoroughly curetted and then the caustic spark applied to the base of the resulting wound.

SMALL MALIGNANT AND BENIGN CUTANEOUS NEOPLASMS, NEVI, VERRUCÆ, BLEMISHES, ETC., may be easily destroyed by one application of the high frequency caustic spark. Soft warty growths are easily destroyed, but hard warts require very vigorous treatment and not infrequently it is necessary to first remove the greater part of the mass with the knife. The detailed treatment of the malignant cutaneous tumors and ulcers will be taken up under the heading of cancer. One must be very cautious in the treatment of cosmetic defects. Although one may employ a surprisingly strong current with the production of an intense reaction, yet scarring is seldom if ever produced if reasonable care is exercised. But at the same time it is possible to cause an extensive destruction of tissue

with the formation of a visible cicatrix and in the case of a purely cosmetic defect such a result might lead to considerable embarrassment. In treating vascular nævi it is advisable to treat only a small area at one sitting, employing a moderate current until an exudation of serum is produced. A scab appears in a day or two which when allowed to spontaneously separate leaves a smooth surface of a paler hue. Several applications may be necessary. Port wine marks cannot be entirely eradicated, but they may be greatly improved. Pigmented moles can be destroyed in the same manner and there is less scarring produced than when either the liquid air or carbon dioxide snow is used. In the case of hairy moles the destruction cannot be carried far enough to destroy the hair follicles without the formation of a scar, so the hairs should first be removed by electrolysis. Lentigo and chlorasma may also be successfully treated in this manner, but the operator should proceed with caution. Very recently I have tried the efficacy of this method in the treatment of condyloma acuminatum and have been rather pleased with the results obtained. When the warts are small I prefer to make one powerful instantaneous application in the center of each lesion. When the growth is large it is preferable to first curette or excise and then to thoroughly treat the base of the wound. It might be stated here that in the treatment of any lesion or disease by this method aseptic precautions should, whenever possible, be exercised and the part should be protected by a light dressing, especially when there is considerable discharge. When the patient appears to be unable to tolerate the pain cocaine or other local anæsthetics may be employed.

THE MALIGNANT NEOPLASMS. As has already been stated small malignant cutaneous tumors may be quickly and easily destroyed by the high frequency caustic spark with a very satisfactory cosmetic result. If, however, the tumor or ulcer is of large size, ablation by means of the knife or curette should be practiced and then the wound thoroughly sparked. Inoperable malignant tumors of the mucous membranes; lips, tongue, vagina, cervix, rectum, etc., also of the breast and even of internal organs have been treated in this manner with gratifying results. Czerny (*Munch. Med. Wochenschr.*, Feb. 11, 1908) reports favorably upon the effects of fulguration, especially in irremovable cancer, and holds that in many instances it is more effective than either the X-ray or radium. As a result of the treatment of thirty-five cases he concludes that when applied to small and superficial cutaneous tumors of the skin and

mucous membranes the results may be expected to be immediate and lasting, but in extensive or deep-seated cancers, especially in a recurring case, very little permanency of the cure can be expected. He has noticed the temporary inhibitory influence exerted on the malignant cell, confirming de Keating-Hart's observation, but in the majority of the severe cases the growth recovered its virulence in a few weeks. Rosenkranz (*Berl. klin. Wochenschr.*, May 18, 1908) has also obtained excellent results by fulgurating rodent ulcers, but prefers to remain noncommittal on the question of a permanent cure. In a recent issue of the *Berliner klinische Wochenschrift* (Aug. 3, 1908) Arndt and Laqueur give a report of their findings after applying the metallic discharge to the internal organs. They assert that deep narcosis is not absolutely necessary for the fulguration treatment so long as the skin remains outside the field of the sparks or is protected from them. The treatment may be applied to the brain and dura mater without injurious consequences and certain minor irritative effects which are ascribed to a change in blood pressure may be avoided by the use of short unipolar sparks. Care must be exercised in treating the thoracic organs, because of the effect of the current on the heart, particularly is this so when the bipolar method is employed. Fulguration of the digestive organs and bladder produces strong contractions with the bipolar current. The tissues and organs after being fulgurated show no injury excepting a superficial necrosis. The authors consider that besides the escharotic action of the spark there is a more or less beneficial remote effect from the current of high frequency.

In the management of extensive and deeply seated cancers as, for instance, in carcanomata of the mammary region, de Keating-Hart's technique is as follows: The diseased tissue is first vigorously fulgurated for the purpose of obtaining vaso-motor constriction. This effect answers the double purpose of lessening hæmorrhage and to reduce the danger of metastasis or reinoculation. It also, by modifying the density of the tumor, facilitates the finding of the plain of cleavage between healthy and diseased tissue. The next step is to remove, as thoroughly as possible, all macroscopical evidence of disease. Such procedure is for the purpose of allowing the current, which is again applied, to reach tissue which cannot be removed by the knife or curette and also to prevent the extensive sloughing and resorbtion that would occur if the entire mass was fulgurated and left in place. The third step is the vigorous application of the sparks to the resulting wound. During the entire operation the patient is under the influence of a general

anæsthetic, aseptic precautions are observed and finally the wound is suitably dressed. De Keating-Hart asserts that the high frequency spark possesses a special action upon malignant tissue, the most important of which is the stupifying or inhibitory effect upon the growth which may last in some instances only a few weeks while in others it has continued for a period of five years. This fact, if true, is of extreme importance in cases where it is impossible to remove all the diseased tissue. Cases are on record where diseased glands, malignant nodules, etc., were left in situ and either disappeared or remained inactive for a period of five years subsequent to the treatment. As to the immediate effects of fulguration there is always a severe reaction accompanied by a copious serous discharge which is followed in a day or two by considerable sloughing. Granulation and healing is usually very rapid. Considerable importance is placed upon the reaction and the serous discharge. The former is of value on account of the large number of phagocytes which are brought to the part while the latter possesses a mechanical action in washing out unfixed malignant cells. It is seen then that in the treatment of cancer the high frequency caustic spark possesses the following attributes: First, the direct escharotic or caustic action. Second, its apparent stupifying effect upon the malignant cell. Third, the phagocytic action promoted by the severe reaction of the tissue to the treatment. Fourth, the mechanical action of the copious serous discharge. Sixth, the possible lessening of the danger of metastasis and resorption because of the immediate constriction of the blood vessels and, seventh, the remote effect upon diseased tissue left in situ.

De Keating-Hart objects to the heat effects produced by the sparks. He considers that the coagulation of the albumin by heat not only interferes with the proper action of the current upon the disease, but that by entering the electrode the coagulum prevents free access to the current. He prefers, therefore, to entirely eliminate the caloric element which he does by employing a hollow conductor through which a cool current of air or gas is allowed to pass. Usually the electrode is connected to a tank of liquid carbonic, but in certain cases, especially prepared aseptic air must be employed. In the treatment of cancer by this method certain other precautions must be taken. For instance, care must be exercised, when the growth is situated near an important cavity, not to destroy all the intervening tissue and all inflammable liquids, such as ether and chloroform should be removed to a safe distance. The apparatus employed by de Keating-Hart consist of an induction coil, a very

rapid interrupter and an Oudin resonator. Usually he prefers to apply the current by the unipolar method, but when very strong effects are desired he attaches the patient to the proximal extremity of the solenoid, obtaining, in this way, a bipolar current. When making a bipolar application it is preferable, whenever possible, to place the tumor between the two poles so as to minimize the constitutional action of the current. Occasionally he employs two resonators at one time.

During the past two years we have treated several cases of cutaneous epithelioma with the caustic spark at the Fordyce clinic. Small lesions are entirely destroyed in one sitting. The larger tumors are first curetted and then the base is subjected to a strong sparking. Some rodent ulcers, especially when situated in inaccessible locations, are treated with both the X-ray and the high frequency caustic spark, the latter measure being used to destroy the pearly or indurated border, a method which has been advantageously employed by Stern at the Lustgarten Clinic (*Transact. Sixth Internat. Dermat. Congress*). After such a short time it would be unwise to advance an opinion regarding the possibility of a permanent cure. Most of our cases have remained well up to the present writing. One patient, however, had a recurrence within two months after a thorough curettage and a vigorous sparking. As has already been stated de Keating-Hart asserts that the process of fulguration if properly employed possesses a distinct inhibitory influence upon malignant cells left in situ and he reports a number of interesting cases in support of his claims. These findings have only been confirmed to a very limited degree. Delherm, for instance (*Archiv. d'Electricité Méd.*, May 25, 1908), reports a case of cutaneous epithelioma about the size of a kidney bean and situated at the inner angle of the eye which was treated in this manner and which has remained well up to the present time; a period of three years. Most observers, however, are exceedingly skeptical regarding the possibility of a permanent cure. Schultz, for instance (*Munch. Med. Wochenschr.*, Oct. 27, 1908. *Abs. Medical Record*, Nov. 21, 1908), although admitting the value of the treatment considers that the further course of the disease is influenced in no greater degree than when other methods are employed. Personal experience with the high frequency caustic spark in the treatment of cutaneous epitheliomata leads me to the conclusion that although the method possesses distinct advantages over other escharotics no more permanent effect may be expected than by the use of other forms of treatment.

SOCIETY TRANSACTIONS

CHICAGO DERMATOLOGICAL SOCIETY.

October 23, 1908.

DR. JAMES NEVINS HYDE, Chairman.

A Case of Rodent Ulcer. Presented by DR. PARDEE.

The patient, a man of forty-seven years, first noticed upon the nose, a slight ulceration following a trauma twenty-five years ago. At present the lesion involves the nose, left cheek, and left eyebrow. The features of special interest are the destruction of the alæ of the nose and the left lower eyelid and the involvement of conjunctiva covering the lower part of the sclera of the eye. The ectropion, the configuration of the nose, and the slow progress of the disease suggested strongly a tubercular affection.

An Unusual Naevus of the Tongue. Presented by DR. HYDE.

This was the case of a boy, five years of age, having a linear group of lesions occupying the side of the tongue and a corresponding area of the cheek. The lesions occurred in bands about one-half an inch wide by an inch and a half long. They were indurated and in some places slightly verrucous. The condition had lasted for several years. The exact date of the onset could not be ascertained.

A Case of Multiple Haemorrhagic Sarcoma. (Kaposi.) Presented by DR. LIEBERTHAL.

The patient, a Russian Jew cabinet-maker, forty-four years old, is married and the father of seven healthy children. His father died at seventy-four after a paralytic stroke, his mother at forty-two from post-partum hemorrhage. One brother and four sisters are living and well. No other member of the family ever was afflicted with skin disorders; patient was never affected with venereal disease and always enjoyed excellent health. About Christmas, 1906, while lifting a box he bruised his left ankle. This and the whole leg became swollen and very painful. Incisions were made and a considerable quantity of pus was evacuated. The swelling subsided and the leg healed within about four weeks. About a year ago the left foot and leg swelled; they have since remained in this condition with occasional improvement. Eight months ago small lumps started to develop on the left foot and leg and two months ago, on the right leg. The patient is anæmic and, excepting the skin affection, in good physical condition. The feet and legs up to the knees are covered with numerous nodules and nodes, from the size

of a split-pea to that of a bean. No other part of the integument is affected. The accessible mucous membranes are free. He suffers pain in the limbs on change of weather and after long standing.

A Case of Mycosis Fungoides. Presented by DR. HYDE.

The patient was a woman aged forty-five years and had been the subject of the disorder for five years. The lesions began on the trunk and extremities as dry thickened patches, dark in color, small coin- and dollar-sized, circular in outline, and progressing steadily. The lesions came and went for the first few years. Here and there, practically all over the entire body are reddish, infiltrated, scaling patches. In addition many tumors of varying size are present. One, the size of the palm, shows ulceration. There are many areas of pigmentation. The entire cutaneous surface is pruritic.

A Case of Molluscum Contageosum. Presented by DR. ANTHONY.

The patient was an infant six months old. On the right cheek there was a phlegmonous inflammation, the size of a dollar, consisting of deep infiltration of pasty consistency, almost fluctuating, as if it were an abscess. The cutaneous surface was of a bluish color and studded with split-pea-sized nodules. It resembled and has been mistaken for scrofuloderma. It had been present for three months. Some of the nodules on the surface had a central depression and their contents, obtained by compression, presented the typical appearance of molluscum contageosum.

A Case of Tubercular Syphiloderm. From DR. HYDE's Clinic.

This was a colored patient, aged forty-two years, with symmetrically placed lesions on the back. When shown there were a few active tubercles, but most of the area showed a superficial atrophy and a loss of pigment. On account of the color of the skin of the patient, the depigmentation by the disease was striking. The extensive surface involved accentuated this feature.

A Case of Extensive Epithelioma on the Forehead. Presented by DR. HYDE.

This patient has been under observation and treatment for about three weeks. The epithelioma was very large, occupying about one-quarter of the surface of the forehead and temple. It was deep-seated and ulcerating, but was responding rapidly to the treatment with the X-rays.

A Case of Pityriasis Rubra. Presented by DR. ORMSBY.

Patient is a woman aged forty years; is at present in the Presbyterian Hospital in the service of Dr. Hyde. Her family and past per-

sonal history are negative. She is the mother of three healthy children. The present disease began in May, 1905; the lesions began between the toes as water blisters. Two months later they appeared in the axillæ, over the trunk, and back of the knees. The early lesions were moist and crusted. The disease gradually changed its type and became a scalding and progressive dermatitis. After six months it was universal. During the two years, alternate periods of marked and moderate scaling occurred. The skin at present is red and covered with fine scales. There is considerable alopecia and quite a marked pus infection in both the palms and soles and a purulent conjunctivitis. The patient is being treated with large doses of quinine as suggested by Engmann and Mook.

A Case of Lupus Erythematosus with Intercurrent Erythema Multiforme. Presented by DR. McEWEN.

Miss C., thirty-six years old. When first seen in April, 1907, an eruption was present about the ears, consisting of numerous coin-sized areas, reddened, slightly infiltrated, covered with thin adhesive scales; there were evidences of central healing with delicate scar formation. The condition had been present seven years and had been persistently treated without result. The general health was good; the patient reported a tendency at times to a general erythema of the face. When seen two weeks later, the greater portion of the face was covered with irregular, erythematous, slightly elevated areas; subjectively there was considerable burning. The condition was regarded as either an acute exacerbation of the old trouble, or an intercurrent multiform erythema. Under treatment with the salicylates nearly all the newer lesions disappeared without scar formation. When shown to the society, the lesions about the ears were still present, while a crop of new lesions had appeared upon the left side of the face. The extremities were not involved. The urine was negative.

The diagnosis of lupus erythematoses with intercurrent attacks of erythema multiforme was confirmed by the members present.

A Case of Canities. Presented by DR. ORMSBY.

This was the case of a boy, five years of age, with a negative family and personal history up to one and a half years ago, at which time he had typhoid fever; following this all of the hair of his scalp and body fell out. As it returned it was perfectly white. Before falling, the hair and brows, also the lashes, were dark brown. At present the eyelashes and brows are perfectly white and most of the hair on the scalp is the same. A few dark hairs are interspersed here and there. There are several lentiginous patches on the neck and hands. The general health of the patient is good.

ERNEST L. McEWEN, M. D., *Reporter.*

THE PHILADELPHIA DERMATOLOGICAL SOCIETY.

The regular monthly meeting of the Philadelphia Dermatological Society was held at the Polyclinic Hospital, on February 15, 1909, at 8:30 o'clock. DR. M. B. HARTZELL, presiding.

Eczema, A Probable Case of. Presented by DR. DAVIS.

The patient was a male of twenty-seven, and according to the history, the present condition started ten years ago. The outbreak originally occurred on the dorsum of the right foot and slowly spread from there, up the leg almost to the knee; this involvement of the right leg started three years ago. At the present time there is one large patch, somewhat sharply marginate, reddish in color, denuded of hair, infiltrated, involving almost the entire lower leg from the knee to the ankle; there are a few superficial pustules on the edge of this lesion. Last August a strong solution of phenol had been applied, by the patient, to this area which aggravated the condition. Dr. Davis had originally thought the condition a deep seated tinea, but had made no examination for a fungus.

DR. HARTZELL said he thought the case was an eczema, with a secondary infection of the hair follicles.

Symmetrical Scleroderma, A Case of. Presented by DR. HARTZELL.

The patient was a woman of fifty-seven years and of a somewhat nervous temperament. The present eruption occurred one and one-half years ago, starting with small board-like areas on both lower legs. At the present time there are two distinct, sharply marginate, smooth, yellowish-white, board-like patches, extending on both legs, from the level of the patella to between both malleoli. There is a reddish-violet areola, quite marked, surrounding each patch. The patch on the right leg exhibited some few superficial ulcerations. There was a slight tendency to papillary hypertrophy on the patch on the left leg, keratotic areas being present.

DR. HARTZELL said that he had never seen patches as large as those under discussion with a violaceous border. He also said that he thought the ulcerations were due to trophic changes.

DR. SCHAMBERG referred to the resemblance to lichen atrophicus.

Pityriasis Rubra Pilaris, A Case Resembling. Presented by DR. HARTZELL.

The patient was a male of eighteen years, who gave a history of an acute onset of the present condition seven weeks previously. The hands were diffusely reddened, greatly thickened and desquamating abundantly. The extensor surface of the forearms, including the elbows were covered with linear red patches, covered with white rather adherent scales, the

follicles were red and prominent. The trunk, especially the lateral regions of the thorax was covered with numerous red and elevated follicles. The face, the neck, and the scalp were red and desquamating; on the posterior surface of the neck the follicles were red and greatly elevated. The inner natal cleft was the seat of a dark red, thickened scaly patch. The trochanteric region on each side and above the same, was also involved, the follicles being elevated and reddened, in places forming desquamating patches. The dorsal surface of the fingers were uniformly reddened and there was but slight follicular involvement. A linear patch, one-half inch in width, extended up the back directly over the spinal column, from the sacral to the dorsal region.

DR. HARTZELL said if there is such a disease as acute pityriasis rubra pilaris, the present case should be considered as such.

DR. SCHAMBERG suggested an unusual seborrheic condition.

DR. HARTZELL said he thought a seborrheic condition could not be entertained as the present case was distinctly follicular.

DR. DAVIS said that it resembled markedly a case of pityriasis rubra pilaris exhibited some years before by Dr. Stelwagon.

Epithelioma of the Lower Jaw, A Case of. Presented by DR. FINCK.

The patient was a male of forty-six, the present condition had lasted three years. A small superficial erosion first appeared on the left side of the lower jaw, this area progressed slowly, in depth and circumference. At present there is a comparatively superficial ulceration on the site mentioned, sharply marginate, although the edge is somewhat broken down, almost white in color, the edge alone being red, the lesion is almost dry, with slight oozing, not bloody, the lesion is half-dollar in size. There is another ulceration of the same type, in contact with the first patch on the inner surface of the left cheek. There is no glandular enlargement. Thiosinamine made in alcohol, in a twelve per cent., solution, was used as a local application.

DR. HARTZELL suggested that probably the best treatment would consist in thorough curetting, followed by the Paquelin cautery.

DR. WALKER suggested the careful use of the knife, followed by the cautery.

DR. DAVIS suggested the use of radium, after Wickham's method.

Lupus Vulgaris, A Probable Case of. Presented by DR. FINCK.

The patient was a male of fifty-four years, who stated that the eruption first appeared beneath the chin at four years of age. This area had spread until it reached from the tip of the chin to about an inch above the clavicular bones, and was about three inches in breadth. Apparently there was very little spread of the disease, after the first few years, until ten years ago it started to attack the left side of the neck, extending up the back of the neck, posterior to the left ear, as far as the hairy border. There is considerable scarring on the area that has been attacked, and there has apparently been a glandular operation on the right side of the

neck. The involved area practically consists of one large patch with a somewhat serpiginous border, there is a somewhat gyrate appearance, and the upper part of the lesion is annular; there are a few typical out-lying tubercles. The lesions are of a dark reddish color.

DR. FINCK said that he had diagnosed the case as a somewhat unusual form of syphilis. He also said that he had used mixed treatment for three months with some improvement in the lesions.

DR. SCHAMBERG had seen the case, but not knowing that the disease had begun in early life, had also thought the diagnosis was syphilis.

DR. HARTZELL said he felt convinced that the diagnosis was lupus vulgaris.

Those present finally came to the conclusion that it was a case of lupus vulgaris, which resembled markedly, in its clinical features, a papulo-tubercular syphiloderm.

DR. HARTZELL said that a valuable point in differential diagnosis, which text books did not emphasize sufficiently, was the fact that in tuberculous disease of the skin recurrence may appear in the scar, while in syphilis recurrence appears around the scar. He also said that the improvement mentioned by Dr. Finck was probably due to the mercury in the prescription, quite a few cases of tuberculosis having been reported as improved under mercurial treatment.

Papulo-necrotic Tuberculide Associated with Lupus Erythematosus, A Case of. Presented by DR. SCHAMBERG.

The patient was a male of twenty-six years, born in Costa Rico, and had only recently come to this country. Four years ago erythematous, slightly scaly patches appeared on the cheeks and the nose; these areas were reddish in color, sharply marginate, and the gland ducts were patulous. The lesions were about half-dollar in size. One year ago a small papular eruption appeared, each lesion having a small necrotic center; the outbreak occurred on the dorsal surface of the hands, the feet, the ears, the elbows, and the knees. At the present time the face shows the characteristic atrophic scarring of erythematous lupus, very little of the active disease being present; the other areas mentioned show papulo-necrotic lesions, and pit-like scars where the former eruption had been. The patient suffers considerably in cold weather, the hands and feet being at times painful. Carbon dioxide snow had been used on the face to improve the scarring. Twenty-six pounds have been gained during the last six months. The patient apparently is in good health; there is no cough.

DR. SCHAMBERG said he thought the association of these two diseases was, at least, suggestive.

DR. HARTZELL said that Beck regarded these lesions on the ears as a variety of lupus erythematosus. He also referred to a case that he had had with scars of this same character on the elbows, the knees, and the ears.

DR. STOUT said that in two cases of erythematous lupus, that he had seen recently, the kidneys had been involved, albuminuria being present.

DR. SCHAMBERG referred to the fatal case of lupus erythematosus, that had recently been reported in the British Journal of Dermatology.

DR. HARTZELL mentioned the fact that most of the patients with this malady were in perfect health.

Multiple Vascular Naevi, A Case of. Presented by DR. SCHAMBERG.

The patient was a woman of twenty-six years, who stated that the disease had lasted since birth. The lesions had increased in size as the years had passed by; there are about two dozen bluish-red, almost purplish lesions, on the right lower leg, the foot, and on the sole of the foot. These lesions are from dime to silver dollar size, of almost every conceivable shape, probably the most usual type being a somewhat irregular many-pointed star. All of the lesions are of this dark hue, excepting those on the sole of the foot, which are rose color. There is a tendency for ulceration to occur in these vascular areas, which causes slight hæmorrhage. This ulceration occurs only during the hot weather of summer; it is very difficult to heal. Scarring is noted in these vascular lesions, where ulceration had occurred.

DR. HARTZELL referred to a case that he had had, of acquired telangiectasis on the legs, which also ulcerated only during the summer months.

FRANK CROZER KNOWLES, M. D., *Reporter.*

THE PHILADELPHIA DERMATOLOGICAL SOCIETY.

The regular monthly meeting of the Philadelphia Dermatological Society was held at the Jefferson Hospital, on Tuesday evening, March 16, 1909, at 8:30 o'clock. DR. M. B. HARTZELL, presiding.

Acne Vulgaris, with Numerous Sebaceous Cysts, A Marked and Unusual Case of. Presented by DR. HARTZELL.

The patient presented was a male of twenty-four years, over six feet in height, with a large frame, quite anæmic in appearance, and with a flat chest and poor expansion. There was no tuberculosis in the family, and the patient had no cough. The man was a gas meter maker. The present condition started two years ago on the chest and the back; the face and the neck being attacked ten months later. At the present time the shoulders, the back, the buttocks, the thighs, the chest, the neck, and the face are almost covered by hundreds of sebaceous cysts, comedones, and acne papulo-pustules. These sebaceous retention cysts are hazel-nut to English walnut size and resemble markedly fibromata in appearance; some of them have a reddened surface. There are scores of comedones, a great many showing a tendency to group, six being counted in one cluster. There are two band-like, keloidal lesions extending from the mastoid region, on either side, diagonally across the anterior portion of the neck to the junction of the clavicles with the

sternum; these bands are considerably raised, with pustular points on the surface, suggesting sinuses. These bands interfere with the raising or rotation of the head. Inflammatory scars are present on the neck where former lesions had been. The condition of the neck suggested markedly that found secondary to broken down tuberculous glands. Von Pirquet's tuberculin vaccination test gave a marked positive reaction.

DR. HARTZELL said he thought that the sebaceous cysts had run together, thus forming the linear keloidal-like lesions on the neck.

DR. STELWAGON said he thought the case possibly a so-called tubercular acne.

DR. SCHAMBERG referred to the fact that severe acne occurs at times in those with heart disease.

Tinea Trichophytina, A Probable Case of, Deep-Seated. Presented by

DR. HARTZELL.

The patient exhibited was a male of sixty-three years; who gave a history of having had this condition for two months. The present eruption was first noticed as two small nodules on the right wrist, these had progressively increased in size and depth. At present there are two areas, one palm and the other silver-dollar size, on the exterior and outer surfaces of the right wrist; these patches are sharply marginate, with a raised annular border, reddish surface, the follicles being elevated and prominent. The lesions are deep-seated and considerably infiltrated. There are numerous openings on the surface, and some sero-purulent oozing. The interesting fact was discovered that the man was employed as a milker for a small herd of cows.

DR. STELWAGON suggested the possibility of blastomycosis.

DR. SCHAMBERG said he thought the case resembled granuloma trichophyticum as described by Majocchi.

DR. STOUT referred to an epidemic that he had recently seen in several horses. He also mentioned the resemblance this case bore to one formerly reported by DR. HARTZELL.

DR. STELWAGON said that he had found tinea tonsurans unusual in country children.

Onychomycosis Trichophytina, A Case of. Presented by DR. SCHAMBERG.

The patient presented was a girl of eight years; the history as to duration was somewhat indefinite. The thumb nail of the left hand, and the little and ring finger of the right hand were attacked. The nails of these fingers were split, very brittle, fully one-half of the distal end of the nail had been destroyed, the free edge was very irregular, tending to form an indefinite half-moon shape. Some years previously the patient had had tinea of the scalp, which was, at present, cured.

DR. STOUT referred to a medical student with tinea of the nails.

DR. SCHAMBERG said he thought emersion of the hands in potassium permanganate was efficacious in these cases.

DR. HARTZELL said he thought warm bichloride solution one to five hundred or one to one thousand, was probably the best treatment.

Keratosis Palmaris et Plantaris, A Case of. Presented by DR. DAVIS.

The patient was a boy of twelve years; he had been exhibited by Dr. Davis at a meeting of the society held a few months before. Fully two-thirds of the right and one-half of the left foot had been involved by the disease, and there was a small patch on the palmar surface of the right hand. The case was marked and typical. It was presented once again to show the marked improvement that had occurred. The soles of the feet are at present smooth, although somewhat thickened, not verrucous as formerly. Hyperidrosis was still a prominent feature. In fact there was a marked amelioration in the former condition.

DR. HARTZELL referred again to the association of hyperkeratosis and hyperidrosis in these cases.

DR. DAVIS said that he had found a prescription of thirty grains each of resorcin and salicylic acid to the ounce of alcohol, the best preparation in these cases. Such a prescription had been used with success in the present case.

DR. KNOWLES showed a photograph, taken when the case was at its height, which contrasted markedly with the present improved condition.

DR. SCHAMBERG said that he had used picric acid with success in several cases of hyperidrosis.

Tubercular Syphiloderm, Probably Hereditary, A Case of. Presented by DR. SCHAMBERG.

The patient presented was a girl of twenty years, somewhat anæmic, and with a history of having had sore eyes during childhood. Apparently she had had considerable trouble with her eyes, vision being somewhat below normal; there had evidently been a former interstitial keratitis. The teeth were not characteristic. There was a marked and deep-seated acne on the face, of some years' duration. Four years ago a small patch appeared on the left lower leg, this area increased in size until at present it extends from the lower half of the left lower leg to the ankle and the dorsal surface of the foot. The border of this lesion is reddish in color, somewhat raised, serpiginous in outline, made up of papulo-tubercles. The center of the patch shows practically no active disease, pigmentation and scarring alone being present. A tubercular family history was elicited, one parent and a brother having died of the disease.

DR. SCHAMBERG said he thought the present case was one of retarded hereditary syphilis, as described by Fournier.

DR. HARTZELL referred to the fact, mentioned by him in a recent address, that in certain diseases lesions melt away at the point of contact.

DR. SCHAMBERG said that the observation applied to the present case.

Lichen Planus, A Probable, but Atypical Case of. Presented by DR. SCHAMBERG.

The patient exhibited was a male of fifty, who gave a history of

having had the present eruption for two years. On the anterior surface of both lower legs, extending from the knee almost to the ankle, there were about two hundred, closely grouped, but not confluent, raised, brownish, pinhead-sized papules. These papules had a somewhat irregularly shaped base, and the summit was conical or slightly rounded. The surface was smooth in most of the lesions, but in others somewhat rough. According to the patient a small punctate pigmentation preceded these lesions. There was a generalized pruritus.

DR. SCHAMBERG said that he thought the case was one of lichen obtusus.

DR. DAVIS said he thought it looked like one of multiple verrucæ.

DR. STELWAGON said it probably belonged under the lichen planus class.

DR. HARTZELL said the lesions resembled markedly small keloids, which tended to form in some skins after traumatism. He referred to the fact that irritation caused a marked development of the papillary layer.

Gangrene of the Hand, Probably Diabetic, A Case of. Presented by
DR. DAVIS.

The patient presented was a male of forty-seven years, born in Russia, and a tailor by trade. Two years and a half ago he injured the right hand with a needle, this caused a palmar abscess which was opened and drained two weeks later. A short time afterward gangrene developed in the distal end of the middle finger; two months later part of the middle finger sloughed away. In the routine examinations made of the urine, sugar was found in considerable amount, varying from 4.54 per cent. to 1.36 per cent. The patient was kept in the hospital for four months; at the time of his discharge, his hand, although still sore, was very much improved; 1.8 per cent. of sugar was present in the urine. One week ago he came under Dr. Davis' care and an interesting condition was found. The entire right hand, from the wrist down, was of a reddish color, markedly shiny and glazed in appearance; the fingers being bluish-red. The fingers were somewhat flexed, claw-shaped, rigid, and could not be extended; the hand also was contracted, being concave from side to side, with deep longitudinal furrows, which the patient because of the rigidity, was unable to smooth out. Fully half of the middle finger had sloughed away, and at present there is a black, dry gangrenous area on the tip of the stump. Sensation both objective and subjective is impaired. All of the nails on the hand were spoon-shaped, markedly convex. The ankylosis of the hand made it practically useless.

DR. HARTZELL said he thought the condition was due more to the trophic interference of nerve supply than to diabetes mellitus. He suggested nerve suturing as probably the only thing that would improve the condition.

DR. STELWAGON said it resembled somewhat the trophic condition seen in dermatitis repens.

DR. HARTZELL said it looked exactly like Raynaud's disease, artificially produced.

Parasitic Eczema, A Case of, So-called. Presented by DR. STOUT.

The case exhibited had been presented at the last meeting of the society. Dr. Stout brought the case to prove how efficacious ichthyol lotion, one-half drachm to the ounce, may be in the sharply marginate, somewhat circinate eczemas. Most of the eruption has disappeared from this severe case, the only other preparation used being a mild laxative.

DR. DAVIS said that he had found a resorcin paste; resorcin grains eight, pulverized zinc oxide and pulverized amyli each two drachms, and petrolatum four drachms, very successful in these cases.

Naevus Pigmentosus, Treated with Carbon Dioxide. Presented by DR. STOUT.

The patient was a girl of twelve years, who had had a pigmented patch on the right ear and cheek, one and one-half by two inches in size. The patient was exhibited to demonstrate the excellent results obtained by this method of treatment. Four applications of the snow had been made, each lasting about one-half minute.

Those present decided that this was probably the best method for treating cases of this character.

Keratosis Senilis, with Follicular Involvement, A Case of. Presented by DR. SCHAMBERG.

The patient was a male of seventy-five years; he had noticed for a long period the appearance of yellowish-brown areas on the face, the scalp, and the dorsal surface of the hands. These lesions were the typical patches of degenerative seborrhœa, some of which had become keratotic. The case was presented because the follicles on the patient's bald head were prominent and rough, being apparently filled with a horny substance. The patient was decidedly uncleanly in appearance.

DR. STELWAGON said that he thought the follicular involvement was caused by extraneous matter.

DR. DAVIS said he thought that soap and water would probably improve the condition.

DR. SCHAMBERG said that he had seen the patient for the first time that morning, and that the follicular condition had been somewhat improved since then by the use of soap and water.

Hyperidrosis, with Keratosis of the Palms, A Case of. Presented by DR. SCHAMBERG.

The patient was a male of twenty, who stated that he had had this affection in a more or less severe form for fourteen years. There was a marked degree of palmar sweating, of the usual type as seen in these cases. The patient was presented because of small keratotic areas on the palms of both hands, at the base of the fingers.

DR. HARTZELL referred again to the fact that these two conditions were frequently associated.

A Case for Diagnosis. Presented by DR. STOUT.

This patient had been exhibited by Dr. Davis at a previous meeting of the society, for suggestions as to a diagnosis. The patient was a girl of sixteen, who gave a history of having had the present lesion for a year. Although the patient had been under treatment for several months in various hospitals, there had been but slight improvement in the condition, chiefly internal treatment having been administered. The lesions were practically limited to the lower lip, the vermilion and the skin adjoining. On the left side of the lower lip there was a three-cent-piece-sized lesion, decidedly papillomatous in appearance, reddish in color, with slight scarring in the center, raised, and sharply marginate. On the right side of the lower lip there was another somewhat linear lesion, with a raised, somewhat serpiginous, sharply margined border, papillomatous in character, dark red in color.

DR. DAVIS said that he had originally been undecided as to whether this was a case of syphilis or blastomycosis. He attempted to make a biopsy, but the girl objected so strenuously that he had to desist.

DR. KNOWLES said that the case had in the beginning improved markedly under mixed treatment, the induration disappearing and the lesions flattened almost to the level of the skin. During the last two months, however, that the patient had been under Dr. Davis' and his care the condition had remained practically stationary.

DR. HARTZELL said he still belived his former diagnosis correct, that of an atypical case of lupus vulgaris.

Pityriasis Rosea in a Mullato, A Case of. Presented by DR. SCHAMBERG.

The patient was a rather light mulatto of twenty-four years, well built and healthy. The present attack was quite acute, the lesions first appearing five days ago. The back, the thighs, the buttocks, the shoulders, the chest, the upper arms, and the abdomen were attacked by the disease. The lesions were characteristic in every detail; pinkish circinate areas with fawn color centers. Pruritus was present to a slight degree. The site of the original patch could not be determined.

Those present referred to the fact that this disease was difficult to diagnose in the negro.

DR. SCHAMBERG said that in certain cases, it was extremely difficult to distinguish a pityriasis rosea from a seborrhoic dermatitis.

DR. DAVIS said that Dr. Knowles and himself had also, within the last few days, seen a case of this character, pityriasis rosea, in a mulattress.

FRANK CROZER KNOWLES, M. D., *Reporter.*

REVIEW of DERMATOLOGY AND SYPHILIS

Under the charge of GEORGE M. MACKEE, M. D.

SYPHILIS OF THE SKIN AND MUCOUS MEMBRANES.

By UDO J. WILE, M. D.

Universal Disseminated Syphiloderm in the Lower Apes Following Inoculation Into the Testicle. E. HOFFMAN and H. LOHE (*Berl. Klin. Wochenschrift*, 1908, No. 41)

This is the report of the third case by these authors of the successful production of a true secondary syphilide in the lower ape, in this instance (*Cercopithecus fuliginosus*). The spirochæta pallida was found in the skin lesions, and the specificity of the eruption, further demonstrated by further inoculation.

The material inoculated was obtained by suction cup, from primary lesions, or condylomata, and of the serum thus obtained from $\frac{1}{2}$ - $\frac{1}{3}$ ccm. was injected with a hypodermic syringe, into the testicle. After $2\frac{1}{2}$ months slight swelling of the testicle itself and a punctiform lesion at the site of inoculation appeared. Soon after a generalized papular eruption appeared on the chin, neck, upper lip, left arm. A definite circinate grouping could be made out on the chin, arm, and lip. On one tonsil a definite mucous patch could be made out. Of eight apes thus treated (following the first) manifestations appeared in only two. This result, however, is a far higher percentage than has been obtained by other authors, due possibly to the method of inoculation.

Pharyngeal and Laryngeal Syphilis. T. HERYNG (*Wein. Med. Wochenschr.*, 1908). Nos. 44 and 45.

The author comments on the relative frequency of syphilitic affections of the pharynx and larynx and the importance of their early diagnosis and treatment.

He recommends the internal treatment as follows:

Hydrarg. Chlor. Corrosiv.....	0.06
Aq. Dist.	ad. 200.0

S. tsp. ii daily in a glass of milk. With this he gives large doses of KI, even up to G. 8.0 pro die.

Locally he cocainizes mucous patches and then applies the following solution:

Hydrarg. Chlor. Corrosiv.....	0.25
Alcohol	10.
Glycerine	10.
Tet. Opii, croc.....	5.

For broken down gummata of these regions the author finds the application of chromic acid the most useful and quickest healing local remedy.

Study of Late Syphilides—"Secondary Gumma Formations, 'sive' Gummatous Lymph Gland Infection." E. DELBANCO (*Monatschefts für prakt, Dermat*), Feb. 1, 1909, p. 995.

The observations in this paper were made before the infectious nature of gummata was established by the demonstration in them of the spirochæta pallida, and it is an excellent treatise of a most interesting subject. Delbanco presents five cases from his practice, of "pseudo chancre redux." In the first three cases, in the absence of a definite history of previous infection, the author diagnosed "primary sore," on the basis of his later observations on these three, however, he recognized the third and fourth cases as pseudo chancre redux and the subsequent history justified his diagnosis. In all his cases, the pseudo chancre first appeared on the penis and was soon followed by enormous unilateral inguinal adenopathy was marked general symptoms. The glands in no instance suppurated or were painful, and all gave rise to true gummata of the groin. In every case the internal administration of mixed treatment effected a cure. Delbanco insisted on the infectious nature of gummata, before the *S. pallida* established this fact, and believes in cases such as he describes, the infection takes place through the lymph glands. The paper also contains a good, general review of the literature on the subject.

"A Case of Hyperplasia Syphilitica Dolorosa, of the Male Breasts."

HALLOPEAU ET FRANCOIS-DAINVILLE (*Bull. de la soc. Franc. de Derm. et Syph.*), Feb., 1909, p. 39.

Before the French Dermatological Society, Hallopeau and Francois-Dainville presented the following most interesting case:

The patient, a man of fifty-nine, was first seen in Juhe, 1908; about one year previously he had had a hard chancre of the penis, which was followed some months later by a secondary eruption. In August, 1908, that is, one year after the appearance of his primary lesion, there appeared a tumor of the right breast. This was round, subcutaneous and not adherent to the surrounding tissues. It was apparently connected

with the glandular tissue of the breast. In size it was about the diameter of the areola itself and decidedly painful to the touch. One month later a similar swelling appeared in the left breast, about the same size as that in the right and having the same characteristics. At this time the tumor of the right breast was not so painful, while the newly appeared one was quite so to pressure. After four months specific treatment, both tumors showed considerable improvement, the right however more than the left. The authors, while presenting the case as one of probable syphilis, admit that they arrive at this diagnosis by exclusion, and they have used the term hyperplasia, because the neoplasms had not the characteristics of gummata, and because they believe that in glandular tissues, syphilitic infiltration frequently causes a primary hyperplasia, followed later by sclerosis. During the entire time since the appearance of the tumors, the patient had no other manifestations of syphilis.

HEREDITARY AND VISCERAL SYPHILIS.

By LUDWIG OULMANN, M. D.

Acute Hepatic Atrophy in Early or Secondary Syphilis. F. P. WEBER (*Proceedings Royal Society of Medicine*), Feb., 1909.

Patient of twenty-two years had a hard chancre two months ago for which he had been treated by inunctions. There were the clinical signs of an acute atrophy of the liver and patient died from it after two weeks severe sickness. The liver weighed only thirty-nine ounces, and was very flaccid. The capsule could be easily removed, and the division into red and yellow areas was not noted. There were a number of changes in the parenchyma and in the liver cells, the inflammatory process varied in different regions. No luetic vascular changes were found and spirochætæ pallida were not demonstrated in the section. Due to numerous reports of atrophy of the liver in secondary lues and to histological changes met with in the pericellular schlerosis of the liver of congenital syphilis, Weber believes that acute atrophy of the liver in secondary lues is connected with syphilis even if the spirochætæ pallida are not found. Weber gives eleven different theories among which the toxic effect of the spirochætæ on the liver seems to him the most probable.

Syphilis of the Stomach. A. CURTIS. (*Jou. Amer. Med. Asso.*), April 10, 1909.

Syphilis of the stomach is rarely diagnosed and may give rise to ulcer and peritonitis. The primary seat is usually in the submucosa and the presence of spirochætæ pallida cannot be depended on. Changes of the vessels are usually found. In the case reported by Curtis there was

a syphilitic history. Pains after meals associated with vomiting and two weeks before gastrectomy, vomiting of blood. The Wassermann test was unsatisfactory, and the Lévaditi method showed no spirochætæ pallida, but histological examination showed characteristic changes of the blood vessels and presence of miliary gummata with Langhan's giant cells without caseation and demarcation and with presence of blood vessels.

Nose Bleeding in a Syphilitic Newborn. A. BAUER. (*Schatzalp. Allgem. med. Centralzeitung*), No. 4.

Three days after birth nose bleeding; three days later exitus of the baby. The day before death there was also bleeding from the navel. The adrenal glands contained spirochætæ pallida, otherwise no signs of lues. The mother contracted a chancre when six months pregnant. Lues should be thought of in every case of spontaneous bleeding of the newborn.

Hereditary Syphilitic Affections of the Nervous System. PIETRO RONDONI. (*Proceedings Royal Society of Medicine*), Feb., 1909.

Rondoni describes two cases of juvenile general paralysis and one of syphilitic brain disease. In the two former the clinical symptomatology consisted of a progressive impairment of the condition of mind and body. The first patient died at the age of eighteen, was imbecilic and showed the signs of the disease only two years before his death. In the second case a very interesting family history is given of the progressive attenuation of the syphilitic virus in the offspring. In both these cases, besides some differing microscopical features according to differing clinical symptoms, Rondoni found a particular vacuolization of the Purkinje cells in the cerebellum. The third patient also gave a specific history and died at the age of twenty-three years. She was healthy up to fourteen years and then showed progressive dullness and apathy, inequality of pupils, etc. The histological changes in this case were a degeneration of the cortical neurons and degenerative and proliferative changes of the vessels of the base. There was also an arrest of development of the ovaries as a stigma of lues hereditaria tarda. The exclusion of paralysis was made by the absence of certain histological changes.

Occurrence and Distribution of the Spirochaeta Pallida in Congenital Syphilis. JAMES MCINTOSH. (*Journal of Pathology and Bacteriology*), January, 1909.

McIntosh found the spirochætæ pallida in four out of five fœtuses which showed congenital syphilis. The histological changes of the different organs are given. Spirochætæ pallida were found in the lungs among the epithelial cells of the bronchi and in the débris of the bronchi

while the connective tissue was packed with them. They were also in the cartilage cells. In one case the spirochæta was found in the parenchymatous tissue between the alveoli.

In the liver they outnumbered the cells in some cases, being especially numerous in the connective tissue of the trabeculæ and in the smaller blood vessels. In the spleen the parasites were found in the cortex and medulla and in the kidneys among the connective tissue around the capillaries and between the tubules. The spirochætæ were not found in the placenta and umbilical cord. In the skin they were present in the papillæ of the corium and in the Malpighian layers. The spirochætæ carried to the skin seemed to multiply in the corium and then passed into the epithelium. McIntosh gives an idea of the course the parasites take in the body and the reaction of the tissues in the form of fibrosis. Where the fibrosis is far advanced, no spirochætæ were found. The placenta with its rich supply of oxygenated blood is not suitable for this anærobie.

The spirochæta pallida is very susceptible to maceration. They are found in seventy per cent. of the cases of congenital syphilis where there is definite pathological evidence of the disease.

PHYSICAL THERAPEUTICS.

By GEORGE M. MACKEE, M. D.

Cancer Treated with the X-Ray with Comments Thereon. Report of Cases of. G. G. WILLIAMS, M. D. (*Transactions American Roentgen Ray Society*). Eighth Annual Meeting.

Williams calls attention to the fact that all cutaneous cancers are, microscopically more or less the same in structure, but clinically they vary from the almost inactive, superficial sore, a slight degree removed from the senile keratosis, to a large growth associated with a general carcinosis. Senile keratoses yield readily to X-radiation, but are not considered in this report. Other precancerous conditions such as moles do not so readily respond to this treatment until after they have undergone malignant degeneration.

The writer divides his cases into six classes. The first class includes those superficial lesions, advanced beyond a keratosis, having a thick scab covering an ulcerated area of long standing with a more rapid recent growth. Also those lesions with elevated margins and ulcerated centers, growing rapidly, having started usually from a mole or papilloma. The second class represents the growths which originally belonged to the first class, but which have reached a more advanced stage and involved the subcutaneous tissue either leaving in their wake a deep ulcerated and sloughing area or by the rapid proliferation of malignant

cells have given rise to a large protuberant or cauliflower-like mass. The third class includes the extensive recurrent and metastatic growths in the deep structures. The original lesion may or may not have been on the skin. The fourth class represents the carcinomas on the mucous membranes. The fifth class includes the primary carcinomas of the breast and the sixth class represents the recurrent tumors of the same region.

In the first group fifty-three cases were treated and fifty-two were healed. One improved until the treatment was unavoidably interrupted when the lesion acquired a renewed activity. After this the ray appeared to have no influence and surgical ablation was performed. Four cases had recurrences which again promptly responded to X-radiation. Five cases died of some other disease, but showed no tendency to recur up to the time of death; a period of from one to three years. Nine cases disappeared. The remaining thirty-five cases remain well after a period ranging from one to four and a half years. The largest number of exposures in a single case was forty-six; the smallest four. The longest duration of treatment was twelve weeks; the shortest, six days.

Seventeen cases of the second class were treated. Two were unimproved; four improved; five were healed temporarily and six have remained well for several years. The largest number of exposures in an individual case was ninety-three extending over a period of nine months. Nine cases belonging to the third class were treated. Five were unimproved; two were temporarily benefited; one healed, but recurred, and one healed and has remained well for twenty months. In the ten cases under class four, not one was cured and the author now advises excision in all such cases. Only three class five cases were treated with two cures in one of which there was a recurrence which again responded to the treatment. So much time is required in the treatment of these cases and the result so uncertain that the writer advises surgical measures rather than X-radiation. Fifteen cases belonging to group six were treated. Three were unimproved; seven showed marked improvement and in five cases there was complete healing in three of which the disease reappeared within a year. The writer is of the opinion that the ray should be employed in all such cases, for much can be accomplished in the way of relieving pain and prolonging life and in some instances a cure may be affected.

The apparatus preferred is a Ruhmkorff coil fitted with a mercury interrupter and an old seasoned tube is desired. Three-fourths to one milliamperes is passed through the tube circuit and the distance varies from six inches in superficial to from ten to sixteen inches in the deep cases. The Benoist penetrometer is employed, but the author does not mention what penetration was used.

Specific Immunity and X-Ray Therapeutics. A. W. CRANE. (*American Journal of The Medical Sciences*), March, 1908.

Crane has treated one case of acne vulgaris, two of lupus vulgaris and one of tuberculous glands in accordance with indications furnished by a study of the opsonic index. From the acne lesions pure cultures of staphylococcus pyogenes albus were obtained and the opsonic index was found to be very low, the average number of germs per leucocyte being one and the percentage of active phagocytes being sixty-two. The day following an exposure of fifteen minutes the average number of bacteria per leucocyte had risen to about one and a half and the active cells to seventy per cent. On the third day the number of germs per cell had increased three hundred per cent. and the active leucocytes seventeen per cent. There was a slight fall on the fourth day, but after another fifteen minute treatment the index gradually increased to the ninth day, when the figures stood 8.76 and 100 per cent. and the active lesions of the disease had completely disappeared. On the tenth day in obedience to an opsonic decline a third treatment was given, but the number of bacteria per cell fell to four and the percentage of active leucocytes to ninety-six where they remained as normal constants.

In the first lupus case the tuberculo-opsonic index increased after each treatment until the fourth, then there was a decline until the seventh, after which there was a rise accompanied by a healing of the lesion which was in turn followed by a fall of the index to a constant. During the negative phase the ulcer remained stationary, but with the upward swing of the index rapid healing occurred. The two remaining cases gave similar results. The writer calls attention to the fact that the specific opsonic index was immediately and favorably influenced by the action of the Roentgen ray, but it ceased to be so modified after the local infectious agent was presumably eliminated so that the index was raised only for the germs present in the lesions. In other words, the rays do not appear to stimulate the production of opsonins for bacteria in general, but only for those in living tissue brought directly under their influence.

The charts of opsonic indices during X-ray treatment are similar in all essentials to those made during opsonic vaccination. In other words, there is a common ground between the two and this seems to be the liberation, in the body fluids, of the immunizing substance of the disease producing agent and these principals should hold in all diseases in which there is pathological material to which the organism may react. In the proper handling of a given case it is necessary to time and judge the strength of the exposures according to the index. Long and oft-repeated exposures may over-stimulate and cause an exhaustion of the reactive power of the body with the production of prolonged negative phases which will prevent a cure. On the other hand weak exposures may not influence the opsonic index at all. To be effectual all X-ray

treatments require a degree of intensity sufficient to set free in the tissues what is equivalent to an autogenous vaccination. The number of exposures and the duration of the treatment and the extent of the diseased tissue exposed should be so regulated as to induce repeated but mild positive increases in the opsonic index. A failure to observe this rule may explain why one case will respond quickly to X-radiation while another patient with similar lesions will fail to be influenced by the treatment.

Leprosy Apparently Cured by the X-Rays; Preliminary Notes Upon a Case of. VICTOR G. HEISER, M. D. (*Medical Record*), October 31, 1908.

The patient upon whom Heiser made his interesting observations was a Filipino male, twenty years of age and confined to the Lazare Leper Hospital at Manila. His family history was negative with the exception that his father was suspected of being a leper. The disease started on the right ear two years before the first observation, which was made on August 12, 1906. The condition at the time treatment was instituted was the following: There was a small tubercle over the left eyebrow. The nose was red, shiny and the alæ nasi were infiltrated. The lower lip was red and slightly infiltrated. The right ear was very much hypertrophied, reddish-brown in color with some ulceration. The Röntgen treatments were begun on November 5, 1906, from which date the head was exposed every three days for a period of ten minutes at a distance of twenty-five centimeters from the tube. The intensity of the ray was just enough to produce a distinct outline of the bones of the hand. From November 21, 1906, to January 21, 1907, the treatment was the same with the exception that his head was placed at eighteen centimeters from the tube. During this period the ear showed a marked improvement. From January 21, to February 8, 1907, he was exposed at a distance of twelve centimeters. From the eighth to the twenty-sixth of February the treatments were given every two days at the same distance and from February 26, 1907, to July 1, 1908, every two days at a distance of twenty-five centimeters. The duration of the treatments was always ten minutes.

During June, 1907, all the parts presented almost a normal appearance and the lepra bacillus was very difficult to demonstrate. In January, 1908, the case was apparently cured. No lepra bacilli could be obtained from the site of former lesions, but they were demonstrated in scrapings made from the nasal septum. The last observations were made in August, 1908, at which time repeated attempts failed to reveal lepra bacilli in the nasal specimens. In so far as could be determined the patient was, at this time, entirely free from the original disease, but he was found to be suffering from yaws which he contracted while in the hospital.

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PSEUDO-XANTHOMATOUS LYMPHANGIOMA.*

By WILLIAM S. GOTTHEIL, M. D., New York.

IN the 1907 issue of the *Ikonographia Dermatologica*, (page 69,) Thibierge describes a unique case of capillary lymphangioma of the skin presenting some of the clinical features of xanthoma. He calls the affection "capillary xanthelasmoid lymphangioma," though apparently his only reason for the designation "xanthelasmoid" is its color and general macroscopic appearance; for his microscopic findings do not show the changes characteristic either of true xanthoma or of pseudo-xanthoma elasticum. During the past winter I have had occasion to observe a case that is clinically an exact counterpart of Thibierge's, and which is, so far as I know, the only other one on record. Histologically, however, it is very different; and its examination seems to throw some light upon the nature of this peculiar variety of tumor.

In Thibierge's case, a woman of thirty-five, there had existed for thirteen years a number of soft, lichenified-looking, irregular, yellowish plaques of varying size on the skin of the right thigh. They increased slowly in extent and number, gave the patient no subjective trouble, and were finally treated by destruction with the galvano-caustic point. The microscopic examination of an excised portion of the tumor, made by Civatte, showed that it was a typical lymphangioma; there were none of the characteristic fat-containing cells of xanthoma; and the author states expressly that "the elastic fibers did not appear to be changed." No explanation of the yellow color and xanthoma-like appearance is given. My own case is as follows:

HISTORY AND DESCRIPTION. Mrs. Lena T., thirty-two, Russian, family and personal history negative. Some thirteen years ago she first noticed on the skin of the outer surface of her left thigh the inconspicuous beginnings of the lesions. These early efflorescences have been permanent; they have grown slowly, but continuously;

* Read before the Thirty-third Annual Meeting of the American Dermatological Association, Philadelphia, June 3, 1909.

and from time to time new lesions have appeared in the neighborhood of the first ones and at other places on the same leg. At the present time (February 12th, 1909), there are three distinct and fairly extensive groups of lesions, each composed of a large number of smaller efflorescences either aggregated into confluent masses or scattered discretely through the skin. Though the patient complains of some burning and itching, there is no reason to believe that these symptoms are really due to the growths; there are no objective signs of pruritus. The patient is markedly neurotic, and complains of shooting pains radiating from the skin lesions all over the body, besides saying that she is very ill from the affection. Nevertheless her internal organs are normal, and her general health appears to be excellent.

The dermal changes are entirely confined to the skin of the patient's left thigh. On the anterior and outer surface of that area, middle third, is the largest group of lesions, which now covers an irregular area measuring $3\frac{3}{4}$ by $2\frac{1}{2}$ inches. Above and outside this is a smaller aggregation of lesions measuring $2\frac{1}{2}$ by 2 inches. On the upper and inner surface of the same thigh is a still smaller group. The first lesions in this group appeared only eighteen months ago; and at the margin of all three groups are minute individual lesions, which according to the patient's statement, have begun quite recently.

In all three areas the individual lesions are precisely alike. They are isolated examples or aggregations of very slightly prominent, soft, more or less circular, pin-head sized or somewhat larger tumors. Where they are closely packed together they lose their somewhat circular shape, and become elongated or quadrangular, apparently from pressure; so that the growth in these places looks like lichenified skin, with marked accentuation of the lines and folds. All the lesions, however, are perfectly soft; they have a peculiar velvety feel, entirely different from that of normal skin; they can be distinctly differentiated by touch, though they are so little elevated as to be only just palpable.

The color of the tumors is distinctly yellowish in the isolated lesions, darkening into a brownish-buff in the more closely studded patches. It resembles that of a disseminated xanthoma to some extent, but is more brownish in the mass; and there is an entire absence of the pinkish tinge of the tuberous form of the disease. There was no macroscopic trace anywhere of vesicle formation;

nor could any serum exudation after puncture with a fine needle be detected with a magnifying glass. Diascopy showed the presence of soft, fawn-colored, and apparently granulomatous masses in the tumors.

The extremely slight differentiation in color from the surrounding normal skin, and the non-elevation of the lesions, seemed to make any successful attempt at photographic reproduction hopeless; Thibierge's color plate is made from a moulage. At the patient's third visit a biopsy was done; and I may state at once that this was the last time that I saw the patient; so that this report contains no record of treatment.

MICROSCOPIC EXAMINATION by DR. D. L. SATENSTEIN: The pathological changes consisted essentially of the presence of cavities of varying size in the papillary bodies and the subcapillary region, together with changes in the elastic tissue. (Fig. 1.)

The corneus layer is somewhat thickened, with nuclei still present in the lower cells. The keratohyalin layer is present throughout the entire section, and is mostly composed of three layers of cells; the nuclei are large and spherical; granules of varying size are present in large numbers. The Malpighian layers show increase in the number of rows of cells; the inter-epithelial spaces are somewhat dilated, but contain no foreign bodies; the prickles of the cells are well retained; the cell bodies are fairly large and the nuclei are well marked; mitotic figures are present in all the layers almost up to the keratohyalin layer, but are especially abundant in the basal and the two supra-basal layers of cells, which also contain some fine pigment granules.

The papillary bodies as a whole are lengthened and thickened, and the interpapillary spaces are correspondingly broadened and deepened. Both in this region and in that immediately below it are large numbers of the cavities to be described below. The connective tissue shows no change; the nuclei are not altered. There is no inflammatory infiltration, nor is there anything abnormal about the vessels or glands. In the subpapillary region and the cutis the collagen is unchanged, but the elastic fibers show marked abnormalities.

THE CAVITIES. (Fig. 2.) In almost every papilla, and throughout the subpapillary region are variously shaped and sized open spaces. Those in the papillæ are elliptical or pear-shaped, and many of them are large enough to occupy most of the papillary

space and to project up so near to the surface that they are covered with only two or three layers of corneus cells; these latter, however, do not show any signs of pressure. The spaces are lined, with large flat cells with hemispherical nuclei that project into their lumen; they lie directly on the surrounding connective tissue, no distinct limiting membrane to the spaces being distinguishable. Both the connective and the elastic tissue in the region of the cavities is well preserved. The spaces are for the most part empty; but in some places they show a finely granular network containing a few nuclei. In the subpapillary region the cavities are smaller, but are present in larger numbers; they are irregular in shape, but all show the characteristic lining cells mentioned above. In a few places short beginning canals lined with the same cells are seen projecting from the spaces. These latter are evidently lymphatic capillaries, and the cavities themselves dilated lymphatic spaces.

THE ELASTIN. (Fig. 3.) The elastic fibers of the cutis are markedly swollen; in places distinct vacuoles can be seen in them. In other places they are broken up into short thick pieces with irregular ends; in other places their body is granular. These changes are all most evident in the subcutis and about the glandular structures. The degeneration known as elastoklasis or elastorhexis is present.

The microscopic examination, therefore, shows the condition to be a combination of a superficial lymphangioma with the degeneration of the elastic tissue characteristic of the so-called pseudo-xanthoma elasticum of Darier. It is this latter change, I believe, which gave to the growth its peculiar buff color. I would not hazard any opinion as to its absence in Thibierge's case; I can only say that clinically the two cases are so absolutely identical that with very slight changes in the configuration of the groups of lesions, his case perfectly illustrates the case here reported. Nor can I do more than make a conjecture as to the possible relationship of the two processes that were present. Elastin changes have not been noted in lymphangioma; nor has lymphangioma been described in connection with pseudo-xanthoma elasticum. It seems possible, however, that the elastin degeneration may be a secondary change, dependent on the obstruction to the lymphatic circulation occasioned by the lymphangiomatous tumors.

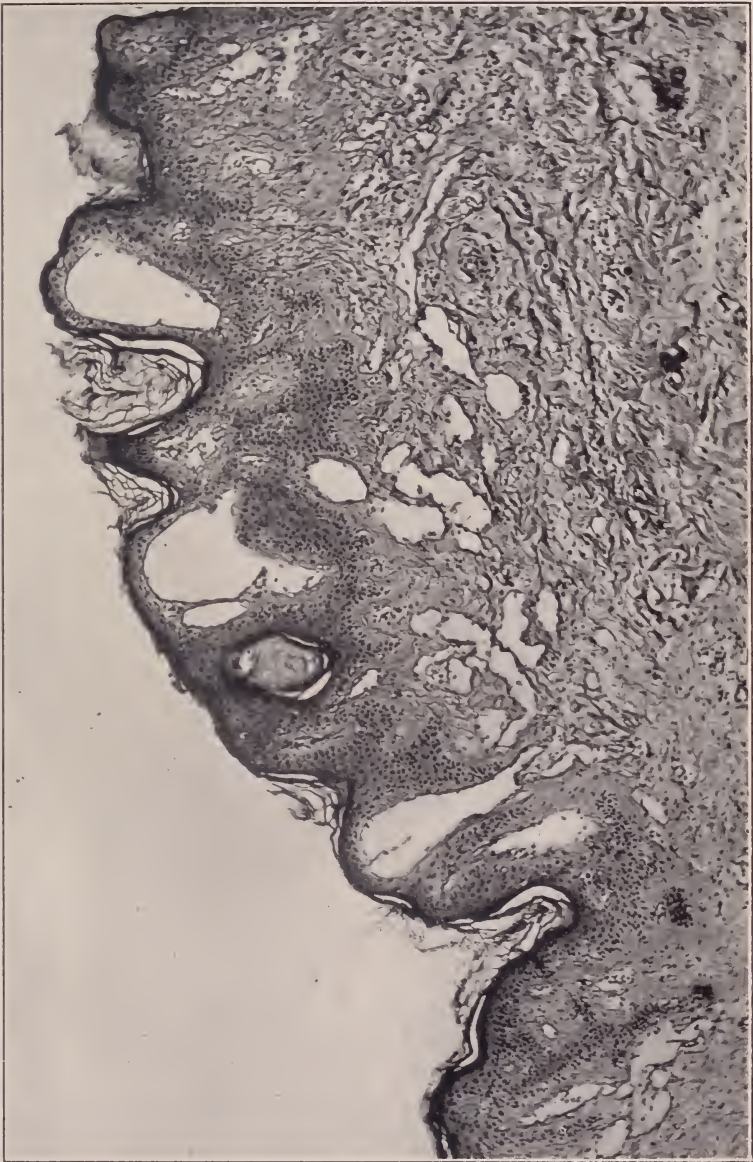


Fig. 1.

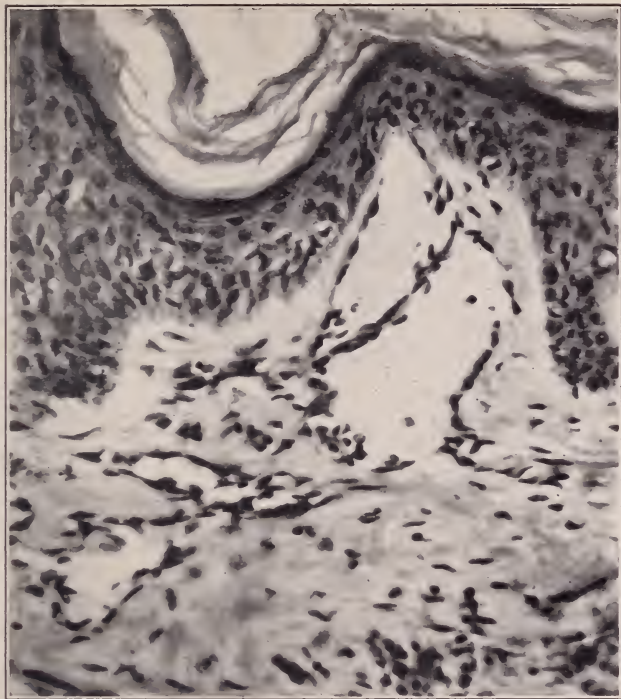


Fig. 2.

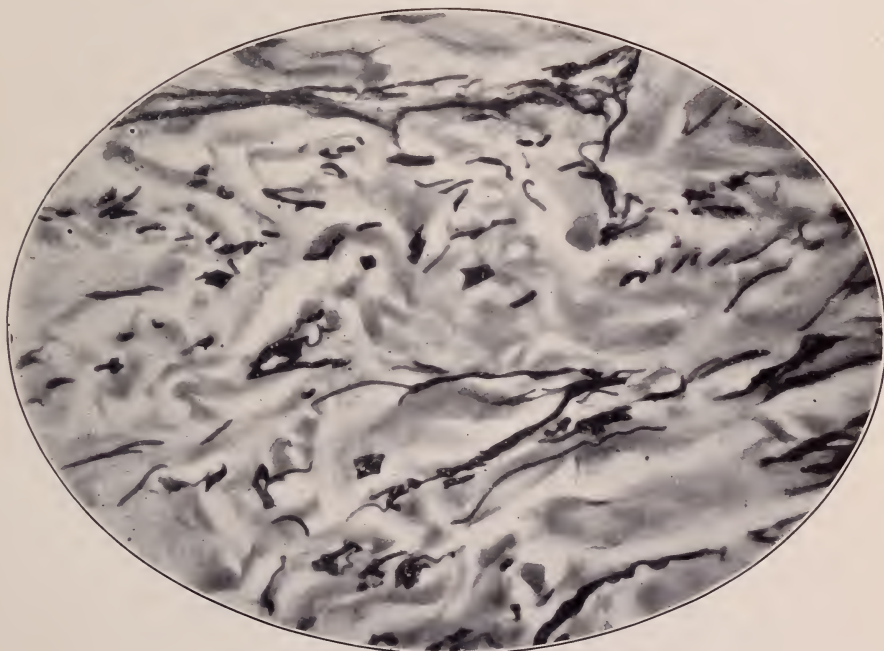


Fig. 3.

THE PRINCIPLES AND CLINICAL APPLICATION OF THE WASSERMANN REACTION

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THE subject of the Wassermann reaction in syphilis has developed so much in the last two years that it is now past the experimental stage as a diagnostic measure. It is probable that the technic of complement fixation will be simplified so that it may be more available, but the principle is firmly established. The method is founded on the Bordet-Gengou phenomenon, which demonstrated the absorption of complement by the inhibition of hæmolysis in a known hæmolytic system. To understand this the subject of bacteriolysis and hæmolysis must be reviewed. If an animal, for example a horse, be injected with increasing quantities of cholera bacilli (antigen) * it develops in its serum the power of dissolving these organisms. This lytic power is dependent upon two substances present in the serum. One, the bacteriolysin, or bacteriolytic amboceptor, so-called because it has a specific affinity on one end for the antigen, and on the other end for complement, is developed as a result of the immunizing process. It resists heating to 56° Centigrade, hence is called thermo-stabile. The second substance is complement, so called because it completes the action of the amboceptor. It is present in the serum of all animals, and is destroyed by heating to 56° Centigrade or by standing at room temperature for some time, hence is said to be labile. Complement or bacteriolysin cannot act alone to destroy bacteria, but when mixed with the specific organism in certain cases the bacteria become dissolved. These bodies may be represented by figures.

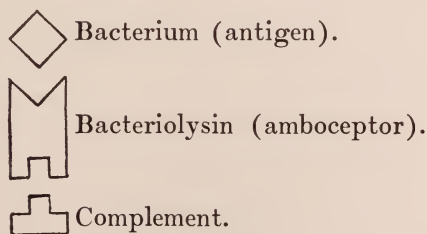


Fig. 1.
Bacteriolytic system.

* An antigen is a substance which has the power of exciting the formation of antibodies.

These form the bacteriolytic system, which, when mixed and incubated at body temperature, may be supposed to join thus:



Fig. 2.
Bacteriolytic system,
joined.

Hæmolysis may be represented in a similar manner. An animal, A, when injected with the red blood cells from an animal, B, develops in its serum the power of dissolving the cells from B. Here, as above, the action is dependent upon a specific amboceptor, the hæmolyism, which has the same physical properties as the bacteriolysin, and complement which is identical with that which acted in the bacteriolytic system. The hæmolytic system is represented in figure 3.



Red Blood Cell



Hæmolysin



Complement

Fig. 3.
Hemolytic system.

When the members of this series are mixed and incubated the cells become dissolved, which is shown by the clear red color of the solution in which they were mixed. Here the union would be pictured as shown in figure 4.



Fig. 4.
Hemolytic system
joined to produce
hemolysis.

Because many bacteria will not undergo lysis, Bordet and Gengou¹ devised the following scheme to demonstrate the presence of immune bodies. The bacteria (antigen), the serum under examination (in which the complement had been destroyed by heating to 56° Centigrade) and fresh complement were mixed and incubated. If the immune bodies were present there would be a binding as shown in Figure 2. If not bound the complement and antigen would remain free in the solution as in Figure 5.



Antigen.



Complement.

Fig. 5.
Complement and an-
tigen free.

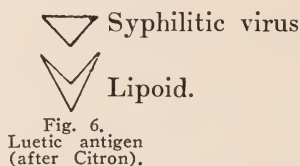
To determine whether the complement was free or not they added red blood cells and hæmolysin. If the complement had been bound to antigen by bacterial immune body hæmolysis would not take place, and the red blood cells would sink to the bottom of the test tube. On the other hand, if no immune bodies were present the complement being free would unite with the other two members of the hæmolytic system, as pictured in figure 4, to produce hæmolysis, shown by the laked color of the fluid.

This method was used by Bordet and Gengou to demonstrate immune bodies in animals injected with bacilli of cholera, anthrax, typhoid fever, hog cholera and with colon bacilli and proteus vulgaris. The German school under Wassermann's leadership employed as antigen extracts of the bacteria instead of the living organisms. They used it clinically in the study of cerebro-spinal meningitis, and also demonstrated anti-tuberculin in patients treated with tuberculin. Next Wassermann, in company with Neisser and Bruck, undertook the study of syphilis in monkeys by means of the reaction. Using as antigen a watery extract of primary lesions, or of livers from a syphilitic fœtus which are known to be rich in spirochætæ pallida, they demonstrated the presence of immune bodies in the sera of monkeys which had been infected with syphilis. The test was then applied to the study of spinal fluids from cases of tabes and general paralysis, a large percentage of such fluids giving a positive reaction, confirmed the previous views that these diseases were late manifestations of syphilis.

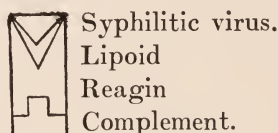
Up to this time it was thought that the process was a true antigen-antibody reaction, but the discovery that livers from non-syphilitic fœtuses, and extracts of malignant growths served the purpose destroyed this hypothesis. Under Wasserman's² direction the study of the nature of the antigen was undertaken, and the active substance found to be soluble in alcohol, which fact placed it in the lipid group. Next the various lipoids in pure state were studied as to antigenic power. Among them may be mentioned lecethin, cholestrin, sodium glycocholate, sodium taurocholate, sodium oleate and oleic acid. Of these lecethin acted the best, but none of them are as satisfactory as the total extracts. At the present time three preparations are most generally used; First, watery extracts of syphilitic livers; Second, alcoholic extracts of syphilitic livers; Third, alcoholic extracts of normal organs, either the heart or liver. Of these the watery extract seems to give a stronger reaction in doubtful cases, but because of its instability it is not a satisfactory preparation for general use. The alcoholic

extract of syphilitic livers acts well in a very high per cent. of trials, and for routine use is probably the best. The alcoholic extracts of normal organs is used quite extensively and in many hands has proven satisfactory, although the reaction in doubtful cases is not so marked as with syphilitic extracts. Wassermann³ still advocates the use of watery syphilitic extracts, but recognizing the advantages of alcoholic preparations, says they may be used providing they are previously compared with antigens of known efficiency.

Because of the non-syphilitic nature of the antigen employed in the test, the specificity of the reaction has been attacked, but the large number of positive findings in lues with the comparative few positive results in other diseases, has more than confirmed the reliability of the method. Citron⁴ has suggested that the lues antigen may be a complex consisting of some soluble product of the syphilitic virus present in the serum, plus lipoid substance and represents it thus:



This substance combines with the syphilitic antibody, which he calls reagin, to bind complement. Following our scheme the reaction would be pictured by figure 7.



Whatever the true nature of the reaction, the fact that lipoids play a part in it throws some light on the nature of the disease. The susceptibility of the central nervous system to the syphilitic virus has long been known. Perhaps this is explained by the avidity of the virus for lecithin, which is very abundant in nervous tissue. In this connection the experiments of Peritz⁵ are of interest. Cases of tabes which gave a positive Wassermann reaction were treated with hypodermic injections of lecithin. The reactions became negative and the clinical symptoms improved. Quarelli⁶ reports similar results in eight out of twelve cases treated, but in the remaining patients the intensity of the reaction at times was increased.

In the Wassermann reaction the various materials used are: First, suspected serum obtained by venous puncture or from the ear. The blood is allowed to coagulate, the clear serum removed, heated to 56° Centigrade for thirty minutes to destroy complement, and used in the quantity of 0.2 cubic centimeter, as a maximum, in each tube. Second, complement, 0.1 cubic centimeter of fresh guinea pig serum. Third, antigen, alcoholic extract. Michaelis and Lesser's⁷ formula is the most convenient. Syphilitic liver or normal organs are finely ground and mixed with ten times the volume of absolute alcohol. The extraction is then made by shaking for twenty-four hours, or by allowing the mixture to stand several days at body temperature. The extract is then filtered, the filtrate being kept as a stock solution. For use one part of the extract is well shaken with four parts of normal salt solution, and one cubic centimeter of this mixture used. Fourth, red blood cells. One cubic centimeter of a five per cent. suspension of sheep's cells which have been washed three times in salt solution to free them from complement. Such a suspension will keep for four to six days. When the salt solution in which the cells are suspended becomes colored with hæmoglobin a fresh preparation should be made. Fifth, hæmolysin. This is prepared by injecting a rabbit three or four times at intervals of five days with washed red cells from a sheep. The rabbit is then bled, the serum separated, inactivated, and the hæmolytic power determined. One unit is the amount of serum that will hæmolyse one cubic centimeter of a five per cent. suspension of cells in the presence of 0.1 cubic centimeter of guinea pig serum. Two such units are used in each tube.

The suspected serum, complement and antigen are mixed and incubated for one hour, after which the cells and hæmolysin are added, and the mixture again incubated for one and one-half hours. The tubes are then put in the ice chest over night and the results read in the morning. If hæmolysis has not occurred the cells will settle to the bottom of the tube. Controls are necessary to show that antigen and serum when used alone do not inhibit hæmolysis. Also sera that have been previously shown to give positive and negative reaction respectively must be introduced. The method is an exceedingly complicated one and requires the facilities of a well equipped laboratory and considerable experience on the part of the examiner. Wassermann has stated that from one to two months' work is required to learn the technic. Probably after having performed about a hundred tests, the examiner's results may be said to be quite reliable. The results obtained by the various observers

speak for themselves as to the value of the method. In the earlier reports the percentage of positive findings was much lower. Lesser,⁸ using alcoholic extract of syphilitic liver as antigen, gives the following summary:

Stage	No. of Cases	Positive	Negative	%Positive	%Negative
Primary	56	39	17	69%	31%
Early*—with symptoms..	204	186	18	91%	9%
Early—without symptoms.	118	79	39	67%	33%
Late—with symptoms	131	118	13	90%	10%
Late—without symptoms.	425	196	229	46%	54%
Tabes	61	34	27	56%	44%
General Paralysis.....	62	62	0	100%	0%

* During first three years after infection.

Blaschko⁹ at the same time reports the examination of fourteen hundred patients with only seventy negative results. Of these thirty-three were early and doubtful, seven had a fresh roseola. The rest were mostly visceral syphilis. Of these he reports that syphilis of bone, both periostitis and gumma, often fail to give a reaction.

I have examined 328 cases of syphilis and 170 controls with the following results: *

Stage	No. of Cases	Positive	Negative	%Positive	%Negative
Primary	16	13	3	81%	19%
Secondary	76	70	6	92%	8%
Tertiary	45	37	8	80%	20%
Latent—little treated....	39	25	14	64%	36%
Latent—fairly well treated.	46	21	25	46%	54%
Visceral	60	41	19	68%	32%
Congenital	5	5	0	100%	—
Tabes	38	22	16	55%	45%
General Paralysis.....	3	2	1	67%	33%

* This work was done in the Pathological Department, Carnegie Laboratory, University and Bellevue Hospital Medical College.

In the controls were most of the common skin diseases and many of the acute infectious diseases. Among these one out of eight cases of scarlet fever, one out of three cases of leprosy and one case of varicella in a boy with the stigmata of congenital syphilis, gave a positive reaction, but in none of these was hæmolysis completely inhibited.

Analysing the figures by stages we find that the reaction appears in primary syphilis in from two to three weeks after the ap-

pearance of the initial lesion, although cases are reported as early as the seventh day. As soon as general infection has taken place the reaction is found positive. The demonstration of the *spirochæta pallida* in genital lesions is probably an earlier diagnostic measure and if both serum reaction and specific organism are found, treatment can safely be started. In this way the patient will be saved a possible dangerous saturation with the virus, and may be prevented from becoming an active carrier of the virus. Some have advised the excision of the initial lesions if *spirochætæ* are found in a genital sore, and if the serum reaction never becomes positive, and no further symptoms develop, to consider the disease aborted. In the occurrence of initial lesions of the lips the finding of the organisms is not so definite a diagnostic measure because of the presence of other *spirochætæ* in the mouth. Here the serum test has more relative value as an early diagnostic measure.

In manifest syphilis both with early and late skin lesions, the reaction has only a confirmatory value, but the fact that it is found so frequently in this condition, renders its use in more obscure cases a fairly certain diagnostic sign. There are a number of irregular skin manifestations that cannot be surely diagnosed as syphilitic. Formerly the therapeutic test was applied when such conditions appeared, now the nature of the trouble can be much more quickly and surely determined. Since the method has been adopted as a routine measure at the clinic with which I am connected, scarcely a week passes that one or more cases of doubtful nature are not referred for differential diagnosis.

It is in the so-called latent stage of lues that the reaction throws much light on the status of the disease. It is found positive in from forty to seventy per cent. of cases of latency depending on the time since infection, number of relapses, amount and efficiency of medication and time since last treatment. In all about fifty per cent. give a positive reaction. Taking up the study by years we find it in the first two years in seventy per cent. of cases; from the third to the thirtieth in fifty per cent.; from the thirtieth to the thirty-fifth year after infection in eleven per cent., and only exceptionally after the thirty-fifth year. Lesser,⁸ who gives the figures above quoted, calls attention to the striking similarity between findings in the serum reaction and the results of the autopsy room. In over four years' autopsy experience in Berlin he found evidence of visceral syphilis in forty-nine per cent. of patients in whom a previous history of lues could be obtained. With the serum reaction forty-six

per cent. of all latent cases were positive. These figures so nearly correspond that it is quite suggestive that latency may only mean the disease is not in evidence on the surface, and is not giving clinical symptoms, but is still active in some of the more vital organs. Indeed, Citron¹⁰ goes so far as to state that a case should not be considered latent so long as the reaction persists. His reasons for such a contention are: First, the constant finding of the reaction in manifest lues. Second, the fact that untreated or poorly treated individuals show the reaction after many years. Other bacterial antibodies begin to diminish in a week to a month after the disease has ceased being active. If the lues reaction is present after ten years or more it must be due to the fact that there is a constant production of antibody, brought about by the presence of the specific organism in the system. Third, cases which have no other symptoms but show a positive Wassermann reaction, lose the reaction under mercury treatment. This fact shows that through the specific therapy toxic substances are removed, the formation of reagin stops, and the reaction must become gradually weaker. He claims that we should consider the reaction a symptom and so long as any symptom persists the process is not latent. Where the line shall be drawn between latent syphilis and visceral syphilis in the light of modern study is a hard question to decide. The general rule is to call those conditions visceral where any definite symptom or sign exists which can be explained on the grounds of being some syphilitic manifestation. Here we find a positive reaction in from seventy to eighty per cent. of the cases. This is where the method comes to the aid of the surgeon and internist. For the differential diagnosis between syphilis and tuberculosis and malignant disease, it is the strongest piece of evidence we have at our disposal. Formerly the therapeutic test was applied, to-day we can make a more certain diagnosis without subjecting the patient to a loss of valuable time, if the condition happens to be non-luetic.

The reaction has helped to clear up some mooted points in the so-called parasyphilides. Lesser's figures show that one hundred per cent. of cases with general paralysis give a positive result. Marie and Lévaditi¹¹ in studying the spinal fluids in this condition found that in the incipency of the disease there were a much fewer number of positive reactions than later when the paralytic symptoms had progressed, and the patients were in a stage of dissolution. In these studies the percentage of positive findings was in direct proportion to the activity of the morbid process. Lesser's⁸ figures

show well the relation of syphilis to tabes. While he only obtained a positive serum reaction in thirty-four out of sixty-one cases examined, forty-five of the cases, or seventy-four per cent., gave a previous history of syphilis. Of the remaining sixteen who denied infection, thirteen gave a positive Wassermann reaction. One of the remaining cases gave a history of injury as the ætiological factor. Of the whole number fifty-eight, or ninety-five per cent. were directly proven to have had syphilis.

In children with symptoms of hereditary syphilis positive results are obtained in practically all those examined. Here also treatment is slow in effecting the reaction. The previous observations of the resistance of this class of cases to treatment are well supported by such findings. In obstetrical practice over sixty per cent. of apparently sound mothers bearing syphilitic children give a positive reaction, and the reverse is also found, namely, that apparently sound children from syphilitic mothers react in a similar manner. If we accept the view that positive reaction without other symptoms denotes latency, we see that the periods of immunity defined by Colles' and Profeta's laws are really periods of latency. Where wet nurses are employed the testing of the blood from both the nurse and suckling will, at times, save an innocent individual from contracting the disease.

We now come to a phase of the question in which I believe the reaction has its greatest value. This is in the control of treatment. In the early studies with the method it was noted that cases which had under-gone treatment gave a much lower per cent. of positive reactions than untreated syphilis. The figures of Bruck and Stern¹² illustrate this:

Stage	Treated-positive	Untreated-positive
Secondary	45%	87%
Tertiary	45%	66%
Latent—early	18%	50%
Latent—late	16%	50%

Such observations led to a study of the effect of treatment on the reaction. Citron, Lesser and Blaschko,⁹ have done the most systematic work along this line. The last named author recently reports ninety cases in which he has followed the effect of treatment of various kinds on all the different stages of the disease.

BLASCHKO'S SUMMARY.

Stage	Cases	Changed	Unchanged	Per Cent. Changed
a. With symptoms—early.....	41	36	5	
b. With symptoms—late.....	11	9	2	
Total	52	45	7	86%
c. Latent—early	23	18	5	
d. Latent—late	15	13	2	
Total	38	31	7	80%
Grand Total.....	90	76	14	84%
Early—Total	64	54	10	84%
Late—Total	26	22	4	84.6%

He calls special attention to the striking similarity in the per cent. of changes in all stages of the disease. In some of the cases where the reaction had disappeared under treatment it returned after this had been discontinued for some weeks. Lesser⁸ reports nineteen out of twenty-two cases, or eighty-six per cent., in which the intensity of the reaction was diminished or rendered negative by treatment. The other three cases he regarded as insufficiently treated. Citron¹³ from observing the intensity of the reaction in relation to treatment has formulated the following laws:

First. The longer the syphilitic virus has worked in the body, the oftener it has caused relapses, the more constant and stronger is the antibody content of the serum.

Second. The earlier the mercurial treatment is begun, the longer it is continued, the more often it is repeated, and the more efficient the manner of application, the lower is the antibody content.

These laws are an epitome of the subject of the relation between treatment and strength of reaction. I have frequently noted that cases which were tested early in the disease and then two or three months after efficient treatment lost the strength of reaction much more quickly than relapsing cases under the same treatment. While each patient reacts in an individual way to both disease and drugs, still the frequency of such results are impressive. Alcoholic patients often fail to show much change in the strength of the reaction. This may be due to one or both of two factors, either that they are not so faithful in treatment, or they do not respond to the cure so quickly.

A certain number of reactions have disappeared under the iodides alone. Lesser states that he has never seen the reaction change under the influence of atoxyl. There has not been enough

work done to make a specific rule as to what form of mercury therapy is the most efficient, but the reaction is seen to undergo change more rapidly with inunctions and injections than under the influence of mercury by mouth. In my records more latent cases are shown to give a strong reaction which have been under the usual dispensary proto-iodide treatment than in any other form. The fact that a negative reaction is found in a patient who has been under treatment only three months is not an indication that there has been sufficient mercury administered. The patient should be given the classical treatment as heretofore, with a test of his serum from time to time. The majority of those well treated will give a negative reaction. But it is to the minority who give a positive reaction that we can say treatment has not yet been efficient. It is probably this class of patients that go on to late manifestations of syphilis. Such cases should be treated until the reaction yields. Perhaps some will never yield, but who can say that they are cured? With the well treated cases who gave a negative reaction, it seems to me that it is wise to try the reaction from time to time. If the complement binding power never appears we can, with a fair degree of assurance, tell the patient that he is cured. If it does reappear we should start treatment at once without waiting for other symptoms to make themselves evident. Such a course will often save the patient many serious manifestations. Lately two cases illustrating this point have come under my observation. Both had been well treated for nearly three years, one internally with bichloride and later mixed treatment, the other with inunctions and injections. Both gave negative reactions, and the treatment was stopped. At the end of two months a second test was made, with a positive reaction in each case. Treatment was at once resumed, but in one of the patients some symptoms of meningeal irritation have developed. Here the reaction was the first indication of the relapse.

A few non-syphilitic diseases have given a positive reaction in the hands of many observers. Some report as high as fifty per cent. of scarlet fever cases giving a positive reaction. The possible spirochæta nature of the specific ætiological factor is here suggested. This is the chief interest in positive results in scarlet fever, for the question of differential diagnosis rarely arises. A few cases of leprosy have given the reaction. Butler¹⁴ reports some noma cases to react positively. Frambæsia, or yaws, also has reacted in the hands of workers in the tropics. Lévaditi¹⁵ has obtained the reaction in spinal fluids of patients with sleeping sickness. Some cases

of tuberculosis and cancer have been reported as reacting, but in most of such trials, other extracts than those from syphilitic organs were used as antigen. These findings speak most strongly for the use of syphilitic organ extracts in the test.

In animals infected with trypanosomes, the serum has been found to possess a complement binding power when used with syphilitic antigen. All these last observations lead to the theory that the reaction is a group reaction, excited by the lower form of animal parasites. It also confirms the view that the spirochæta pallida is a protozoon. In the majority of the cases above enumerated the question of differential diagnosis does not arise, so that the value of the method as a diagnostic measure and an indicator of therapeusis is not diminished.

The fact that a small percentage of cases fail to give the reaction is unfortunate, but the method should not be condemned on this account. It is a biological process, and for some unknown reason, all individuals do not respond in a like manner to a similar stimulus. As our experience grows and our technic improves, we discover the reasons for some negative findings.* If all cases were studied from the beginning, I am certain the percentage of positive results would be higher than yet reported. If we will regard the reaction as a symptom or manifestation of the disease, and measure it in the same light that we do other manifestations, we will appreciate its true value. Syphilis is found at times without the characteristic initial lesion, without the roseola, and in three per cent. of cases without the adenopathy (Fournier). Other early symptoms are at times absent, and tertiary lesions may appear from a placental infection. The absence of any one symptom does not exclude the possibility of the disease any more than the absence of the Wassermann reaction. It is only in weighing all the evidence that we make a diagnosis and this latest of the symptoms described is one of the most important at our disposal. It behooves every student of the disease to be thoroughly conversant with its possibilities and to utilize the reaction at every opportunity.

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ON SOME ERUPTIONS OCCURRING AFTER ABDOMINAL OPERATIONS *

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THE occurrence of eruptions after abdominal operations is well known to all surgeons. The cause of these has been difficult to discover and many factors have been adduced to account for their appearance. It was thought that they were due to the newly introduced tar products, which some years ago were so freely used after abdominal section. I had been much puzzled at the occasional occurrence of eruptions after operations and endeavored to find out the cause.

The eruptions were of various characters, the most frequent being a very itchy dermatitis of a scarlatinaform character followed by desquamation without elevation of temperature or sore throat. Others consisted of a diffuse papular eruption, intensely irritating, which covered the body a day or two after operation and lasted a week or more. At first I thought these due to antipyrin, trional, acetanilid, and other tar products which were used to allay restlessness and promote sleep, but after these drugs were discontinued the eruptions still from time to time appeared. Then it was thought that the enemata which were always freely used in the first week after abdominal section were the cause and that turpentine, which was almost invariably an ingredient, was the offending drug. But these eruptions still were seen after the turpentine was omitted and a plain emema of soap-suds used. The kind of soap used was then inquired into and it was found that the common yellow soap was generally employed though castile soap was also frequently used.

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The possible explanation came later, when a patient, not an operation case, always had an eruption after an enema of soap-suds made from common yellow soap, but if castile soap was substituted no eruption followed. This was corroborated by the fact that in exchanging the yellow for the castile soap in other patients who had these eruptions it was found that the yellow soap produced rashes, whereas, the castile soap did not.

It was then found that the cheap and common yellow soap contained a considerable quantity of resin and to this I have no doubt we must attribute the cause of many of the rashes seen after abdominal section. Of course I do not say that all eruptions following abdominal section are due to this cause, but I am sure that in many such cases the eruption is due to the enemata. Ether, perhaps, may account for some, but I have usually seen ether rash of the simple erythematous variety. I give a few cases in illustration:

Case I.—Miss M., aged twenty-four, operation for appendicitis, January 19, 1907. On January 21 a scarlatinaform rash appeared first on the face, then arms, legs, and finally the whole body was covered. The rash was very irritable and there was much itching. No sore throat, no special elevation of temperature, no headache. The rash became very marked on body and lasted the best part of a week, then gradually faded and was followed by desquamation.

Case II.—Mrs. M., aged sixty-four; operation for appendicitis. The usual enemata of soap-suds were given, no drugs administered. On the fourth day an urticarial rash appeared over the trunk, later the rash had a scarlatinaform appearance and was very irritable. No sore throat or elevation of temperature. The rash lasted nearly a week and was followed by slight desquamation.

Case III.—Mrs. E. L., aged twenty-eight, operation laparotomy, November 22, 1907. The usual enemata were given in this case with turpentine. On the fifth day after the operation a closely set, papular rash appeared over the body which was very irritable; in a day or two the rash became erythematous and then gradually faded away. No sore throat, no elevation of temperature and no desquamation. The patient had three enemata with turpentine before rash appeared.

Case IV.—Mrs. L. S., aged twenty-six. Laparotomy, November 27, 1907. Enemata given twelve hours after operation with turpentine; continued every six hours. Twenty-four hours later a rash, erythematous in character, came out over the face, then extremities and lastly over body. No sore throat, no elevation of temperature

and no desquamation. The enemata were discontinued and the rash disappeared in a few days.

Case V.—Miss M., aged twenty-four. Laparotomy, November 29, 1907. Erythematous rash appeared next day after two enemata had been given both containing turpentine. No sore throat, no temperature, and no desquamation; lasted several days.

Case VI.—Jessie M., aged seventeen, operation for appendicitis. Two soap-sud enemata. Rash appeared within twenty-four hours, closely set papules with some petechiæ and in some places red blotches of urticaria. For four days rash was quite bright red in color and then gradually faded away leaving brownish stains. There was no sore throat or rise of temperature and no desquamation.

Case VII.—Julia T., aged twenty-seven, operation for appendicitis. Two days later a closely set papular rash appeared over the body with petechiæ; soon the whole surface was of a brilliant scarlet and very irritable. This lasted a few days and gradually disappeared. I had given the usual soap-sud enema after operation, yellow soap only, and there was no sore throat and no rise of temperature or desquamation.

Case VIII.—Lizzie McK., aged twenty-five, admitted for gastric ulcer. Soon after admission an enema of soap-suds was given; common yellow soap used. Twenty-four hours later an erythematous rash appeared on the legs and body which lasted a couple of days and then disappeared. Another enema was given and again a rash appeared, and a third time after an enema a rash appeared. Now, after a few days another enema was required and castile soap was substituted for the common yellow soap and this was not followed by a rash, nor was any subsequent enema followed by a rash as long as castile soap was employed.

After a time an experimental enema with yellow soap was tried, and as before, an erythematous rash showed itself within twenty-four hours.

In none of these cases was anything administered by the mouth. In some cases mentioned the turpentine, in the proportion of one drachm to the pint, was used, but in all the others simple soap-suds made from the common laundry soap was employed.

Since I have used only castile soap in enemata fewer rashes have been seen.

THE SPIROCHÆTA PALLIDA; ITS EASY DEMONSTRABILITY, AND A BRIEF REVIEW OF ITS HISTORY

BY UDO J. WILE, M. D.

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IT is just four years since the keen eye of the late Fritz Schaudinn, working in collaboration with Erich Hoffman in Berlin, first discerned in secretion from syphilitic material, a long spiral organism to which he gave the name *spirochæta pallida*. Its constant presence in the lesions of syphilis, both in man, and as was shown later by Metchnikoff and Roux, in apes inoculated with syphilitic material, have, in spite of the inability to grow the organism in artificial media, quite justified the hopes and claims of the discoverers as to its ætiological bearing to syphilis. With the possible exception of Siegel, who still claims his bacillus as the ætiological factor of syphilis, it may be said that the ætiological relation of the *spirochæta pallida* to syphilis is a now universally accepted fact. Considering its size relative to that of ordinary bacteria, it being ten to fifteen micro-millimeters in length, it is indeed strange that the *pallida* escaped discovery so long.

The search for an organism as the cause of the disease, dates from the beginning of bacteriological knowledge, and a brief historical review of the many attempts has a place in this paper and should prove of interest.

In 1879 Klebs published the results of experiments tending to show that a fungus was the ætiological factor in the causation of syphilis. He was able to grow the organism in culture, and able to produce in apes what he took to be experimental syphilis, and from these infected animals he was able to infect others with the disease.

Two years later Aufrecht described in the blood of a syphilitic patient, and in condylomata, "specific cocci," which he subsequently found in six other patients suffering from syphilis.

Birch-Hirschfeld, in 1880, found bacilli in gummata in the

liver, lungs, kidney, and brain, which he considered identical with the organism described by Klebs and Aufrecht, and which he likewise considered as the infective agent of syphilis.

In 1884, Lustgarten described an acid fast bacillus which he had found in two primary lesions, in papular lesions, in a lymph gland, and in gummatous nodules, which he believed to be the specific organism. His work was corroborated in the same year by Doutrelepont and Schütz, who, however, were unable to grow the organism, or to carry over the infection into animals. Babes, Giacomini and Leloir, and Matterstock also confirmed Lustgarten's work. In 1885, however, Cornil, Alvarez and Tavel, later Klemperer and also Finger, showed the tinctorial identity of the Lustgarten bacillus with the bacillus of smegma, and cast doubt upon its specific character.

The year 1886 brought out the announcement by Disse and Taguchi, of a new germ of syphilis which they claimed to have found in syphilitic lesions; also spores which they described in the blood, urine, and pericardial fluid of infected animals. They identified their organism with that of Aufrecht and Birch-Hirschfeld. Their work, however, could not be corroborated.

Some time later, Kassowitz and Hochsinger described a chained organism which they found in hereditary syphilitic children, and which they considered specific, but which Kalisko soon identified as the ordinary streptococcus pyogenes.

In 1882 Dohle described a varying sized protoplasmic motile body, which he found in syphilitic secretions, and which he also found in the blood of infected guinea pigs.

Further experiments were then published by v. Niessen, who claimed to have cultivated the syphilis bacillus from the blood of infected individuals at all stages of the disease. His organism showed great variety of form and size, a diplococcus form, however, being predominant. He further claimed to have infected apes, pigs, and horses with his organism. Neisser, however, working with a pure culture of this organism, failed to produce experimental syphilis in apes with it.

Justin de Lisle and Jullien, later also Paulsen, gave a new impetus to the subject in describing an entirely new parasite, only to have it later shown by Passini to be a harmless saprophytic habitant of the normal skin.

Finally Joseph and Piorkowski described in the spermatic fluid of syphilitics, later also in syphilitic lesions, a large thick bacillus, for which they claimed specificity; only to have their work definitely overthrown soon after by Pfeiffer and Sternberg.

All these early attempts to find a specific organism, though failing in their purpose, had an immense value, since they served to sustain the belief in a specific organism as the causative factor in the disease, and since they stimulated and kept alive the controversy, which finally resulted in the discovery of the *spirochæta pallida*.

An entirely new and most important impetus was given to the subject in 1904, when before the International Dermatological Congress in Berlin, Metchnikoff and Roux published the results of experiments, wherein they showed that of nine chimpanzees inoculated with the virus of syphilis, all had become syphilitic. Their work was entirely corroborated by Neisser soon after, who conducted a long series of experiments with the apes of Java. His inoculations with the apes of this country, were entirely successful.

Closely following upon these two important contributions, and undoubtedly stimulated by them, we come to the epoch making discovery of Schaudinn and Hoffmann, who not by lucky accident, but as the result of painstaking work, supplemented by the former's complete knowledge of protozoology and bacteriology, brought to the attention of the medical world, and what is more important, convinced it almost wholly, that the long sought organism had at last been found.

A spiral organism as the causative factor of syphilis, however, had been described as far back as 1837 by Donne, who besides describing it even pictured an organism to which he gave the name "*vibreo lineola*," and which we now believe to be identical with the non-pathogenic *spirochæta refringens*. Mention must also be made of Bordet's work, in which he claims to have seen in 1903, in the secretion from a syphilitic chancre, a *spirochæta* which he at that time stained with carbolmethyl-violet, and methyl-green. He could not find the organism constantly, however, and his publication only appeared after the first one of Schaudinn and Hoffmann.

The Schaudinn-Hoffmann publication, soon brought forth an enormous literature from all parts of the world; for the most part corroborative, yet not a few observers reported negative results.

Among the most important corroborative contributions, was that of Bushke and Fischer, who first found the spirochæta pallida in the liver, spleen, and blood of a congenital syphilitic infant. Metchnikoff and Roux reported the finding of the organism in a papular eruption on the skin, and in the lesions of experimental syphilis in apes. Lévaditi and Salmon, each working independently, found them in pemphigus syphiliticus neonatorum, and the former also in the organs of numerous congenitally syphilitic infants. In the circulating blood, Reckzeh, Raubitschek, Wolters, then Noeggerath and Staehli, and finally Ravaut, demonstrated the pallida; and so in rapid succession, every syphilitic lesion, primary, secondary, and tertiary, was found to contain the erstwhile elusive organism. To enumerate all the investigators who have contributed to our present knowledge, would carry us too far into the literature. In our own country, Flexner, Noguchi, Fanoni, and MacKee were among the first to hand in evidence corroborative of the great discovery.

The first spirochæta was seen by Schaudinn in the unstained condition with the oil immersion lens, in the expressed juice of a condyloma lata. He and Hoffmann immediately began the study of its tinctorial reactions. Their first stains with eosin-azure and azure II, though laborious, involving in some cases an expenditure of from one to three days, showed, however, the organism in its entire morphology. Seen thus, the spirochæta pallida was a slender long spiral, from ten to fifteen micro-millimeters in length, and one-fourth of a micro-millimeter in width: The number of spiral windings varied considerably; as a rule there were over seven, at times even fifteen or twenty, ending in a long flagellum at either end.

Since that time much simpler staining methods have been perfected, so that now the demonstration of the organism in smears is a matter of only a few seconds' work. In the tissues, however, no perfectly satisfactory staining method has as yet been devised, yet their demonstration in tissue is a simple though rather long process, by the method of silver impregnation. For this method we are indebted to Bertarelli and Volpino, and to Lévaditi: The older method of the latter gives perhaps the most consistent results, and is carried out as follows: The tissue to be examined is cut into thin slices (about 2 mm. in thickness), and carried through the following solutions:

- I. Fixation in 10% formalin for 24 hrs. or more.
- II. Alcohol 95%, 12 hrs. (or over night).
- III. Wash in dist. water until pieces sink to bottom (10-15 minutes).
- IV. Sol. silver nitrate 1.5 to 3%, 3-5 days (in dark or brown bottle).
- V. Sol. containing pyrogallol 4 grams.
Formalin 40% 5 cc. } 24 hrs. at room temperature.
Aqua Dist. 100 cc. }
- VI. Dehydrate through the alcohols and embed in paraffine.

By this method, the spirochætæ are very readily seen, appearing intensely black, due to their impregnation with a silver salt. The surrounding tissues are stained yellow, and the contrast is excellent. Great care, however, must be exercised in calling a given black spiral structure a spirochæta, for it must be remembered that elastic tissue also stains black by this method, and a small elastic fiber, can thus at times closely simulate the organism.

For staining the organism in smears, there are numerous methods employed; that which the writer prefers for routine work, is the quick method embodying the use of the Giemsa (Romanowsky) stain. For this method cover slip smears are made and immediately dropped into absolute alcohol for five to ten minutes for fixation; for finer morphological study, they may be held two or three minutes over an osmic acid solution, but for all practical purposes the alcohol fixation suffices adequately. Ten or twelve drops of the Giemsa solution are now dropped into ten cubic centimeters of distilled water, and this solution is poured over the cover slip, which is then gently heated until a thin steam arises from it. The solution is then poured off and this operation repeated six times.

The last time, after heating, the solution is allowed to remain on the cover slip for one minute; it is then poured off, the slip washed in running water, dried, and mounted in balsam. By this method the spirochæta pallida stains bright red, the spirochæta refringens and other forms take a blue tinge.

Excellent results may also be obtained with this same dilution of the Giemsa solution, by immersing the smears face downward in the solution for one hour. If the Giemsa stain is not obtainable, good results, though not equally so, may be obtained by the use of Victoria blue or gentian violet.

As has been said before, Schaudinn first saw the spirochæta in

the unstained condition, but even for the trained eye, this is a difficult feat, on account of the extreme slenderness of the organism, and its low index of refraction. With the aid of the dark field condensor, we now have the means of studying the living *spirochæta pallida*; a very valuable aid to the quick diagnosis of syphilis, which owing to the simplicity of its employment, and to its relative inexpensiveness, is quite within reach of every syphilographer. This instrument consists of a central black spot, around which the light in concentrated form is reflected, the microscopic object being seen as a highly illuminated object on a black background. It has been the writer's opportunity to employ all the standard dark field illuminators now in use, and the one which recommends itself to him for its simplicity and cheapness, is the latest model manufactured by E. Leitz. This instrument costs in Europe about ten dollars, in this country about sixteen dollars. An especially strong light is essential, and for this purpose Leitz has constructed a small arc lamp with a convex lens for concentrating the light, which is also to be recommended; but if it is desired to save expense, a strong Welsbach gas lamp, or a Nernst electric light, will be found to suffice adequately. In either case however, it is necessary to interpose a convex lens between the source of the light and the stage of the microscope. The adjustment is simple; the dark field illuminator simply being placed on the stage of the microscope, centered, and clamped. The one-twelfth oil immersion lens and the number four ocular, give sufficient magnification for ordinary use. A small diaphragm, however, is necessary for the oil lens, and costs but forty cents.

A few suggestions are now in place, as to the collection and examination of suspected material. The ordinary method for collecting the secretion is to scratch or scrape the lesions with a scalpel or other sharp instrument, and in this way gather up any serum which may form. This method has two distinct disadvantages. First, unless great care is used, too much blood will be exuded, and the material will be too dense for examination; secondly, the process is likely to be attended with considerable discomfort to the patient, particularly if the lesion to be examined, as so frequently happens, is on the genital regions.

A much better method is the one which the writer learned from Prof. Hoffmann himself, and which consists in the employment of a small Bier's cup for collecting the material. The method of

procedure is as follows: The lesion to be examined is first cleaned with normal saline solution (in no case should bichloride or other antiseptic be used). After drying with sterile gauze, a small glass cup fitted with a rubber bulb is applied to the lesion, and as will soon be observed, the negative pressure causes serum to exude in surprisingly large quantities, much more for example, than could be obtained by scraping the lesion. The cup can then be removed by gentle pressure upon the rubber bulb without contaminating the hands. Small quantities of this serum are now transferred to clean cover slips, and these in turn are inverted over clean slides. A practical hint may here be given as to the best method or transferring the material from the cup or from the lesion to the cover slip. This is usually accomplished by the use of a platinum loop, and one has but to use such an instrument to appreciate its disadvantages; it either gathers up too much of the material or none at all. Much more convenient for use is a platinum needle, the end of which has been flattened out, to resemble a little shovel. With this, just about the right amount of serum can be scooped up each time.

If it is desired to keep the specimen viable some time, it should be sealed up, and this can best be done by rimming the edges of the cover slip where the latter meets the slide, with paraffine. A small candle, first lighting the latter, then blowing it out and drawing the wick across the cover slip, makes an admirable sealing instrument; the melted paraffine running from the end of the wick effectually closes the specimen. Specimens so sealed retain their viability if kept at thirty-seven degrees Centigrade for hours and even days; in one experiment of the writer's, spirochætæ were still alive and motile after the lapse of three days.

To examine a specimen thus made, one places a drop of oil on both the upper and under surfaces of the slide, the light is then turned on, and the oil lens is turned down into the field. When in focus, we see a dark field with small, actively dancing points of light. The spirochætæ are most usually found hanging by one pole to epithelial débris, or to the red blood cells, and they appear as slender spiral waving bodies, having a rapid corkscrew motion, and a much slower wave like motion along their longitudinal axis.

In smears taken from the mouth, the spirochæta dentium must be differentiated; from the spirochæta balanitidis and spirochæta refringens in smears taken from the genital regions, the differential diagnosis is very simple; the two latter have a faster undulat-

ing motion, they have wider and fewer convolutions, and are themselves larger and coarser than the pallida.

While it is undoubtedly true that too many laboratory refinements tend to make one conversely less of an objective diagnostician, yet the demonstration of the *spirochæta pallida* has at times an immense value in the early recognition of syphilis. It will often save the patient many weeks in his cure, and the physician many hours of anxiety and doubt. The easy demonstrability of the organism by the use of the dark field illuminator, or by the quick methods of staining, while they need not be routine measures in frank cases of syphilis, will often clear up a doubtful case, say of mixed chancre, or a dubious eruption, and but little practice is necessary to perfect oneself in the technique necessary for the operation.

616 MADISON AVE.

SOCIETY TRANSACTIONS.

THE NEW YORK DERMATOLOGICAL SOCIETY

Regular Meeting, March 23, 1909.

DR. WHITEHOUSE in the chair.

Epithelioma of the Soft Palate. Presented by DR. FORDYCE.

The patient was a man, fifty-one years old, a native of Hungary. He stated that he had only noticed the development of the tumor for the past six months. The entire soft palate and pillars of the fauces presented an ulcerating growth, resembling somewhat a specific lesion. The case was chiefly of interest on account of the question of differential diagnosis between an ulcerating gumma and an epithelioma. The pathological examination revealed a squamous-celled epithelioma.

Case for Diagnosis. Presented by DR. FOX.

This patient first presented herself for treatment some weeks ago, with an eruption of the face, and scalp, and upper portion of the chest, which seemed to be erythematous in character. The eruption has existed for over a year and has increased steadily. In May the hair began falling from the scalp, and this also has increased. There have apparently been a number of small disks which have spread and the eruption has become confluent.

DR. BULKLEY did not consider it a case of mycosis, for that would be more general. He had never seen it so localized. One sees chronic eczema, however, on the chin alone. He felt no doubt about the diagnosis, but would exclude lupus erythematosus on account of its rapidity of development, the absence of

margins, excepting in one instance, and the general diffuse character of the eruption.

DR. ELIOT regarded it as a premycotic condition.

DR. LUSTGARTEN preferred to reserve his decision until a blood count should have been made. An increase in the number of lymphocytes would strengthen his belief that it was a premycotic eruption.

DR. FORDYCE did not care to venture a diagnosis without further investigation. The case presented a unique clinical picture and was similar to one he and Dr. Fox had seen together some years ago. In that case there was an extensive erythrodermia over the trunk; a blood examination had been made but did not throw much light on it. Later the patient died from some unknown cause.

DR. FOX said that he made up his mind that the condition was more severe than an eczema, then he thought of erythematous lupus but excluded that; he then considered the diagnosis of mycosis fungoides.

DR. ELIOT said that Dr. Fox had presented a case some fifteen years ago where the lesions were simply around the axilla. He recalled a case where all the tumors were localized in the left Scarpa's triangle, excepting one on the buttock,—none anywhere else. They were never, however, larger than the end of the finger. On the abdomen and shoulders the symptoms were entirely of the erythematous type. The case had been under observation for thirteen years and at present was entirely free from lesions. Microscopic examination of a growth had been made and a typical picture of mycosis fungoides found.

Scleroderma. Presented by DR. TRIMBLE.

Female child, from the Fox clinic, seven years of age, born in the United States. She has band-like lesions on the right leg and thigh and morphæa on the chest. They have all the characteristics of scleroderma. The case is now being treated with intramuscular injections of fibrolysin, given in the buttocks at intervals of about five days. Up to the present time she has had eight injections with no appreciable results. The treatment, however, will be continued for a while longer.

DR. LUSTGARTEN said that the question of the ætiology of scleroderma had aroused a new interest in him lately. About two weeks ago he saw in consultation a case of quite extensive scleroderma, with mask-like face and also sclerodermatic changes of all extremities up to the knees and elbows. The patient was a woman fifty-six years of age and a widow for twenty years. No children. The history was of no assistance. The changes had started and progressed rather quickly within about a year. He was particularly impressed with the appearance of incipient sclerodactylia on the hands, and by the clinical resemblance of that to certain forms of the Raynaud type. Of the latter he has seen quite a few cases in the last few years, mostly on Polish and Russian Jews, and has reached the conclusion that at least a number of these are due to an obliterating process of many small arteries and veins of a specific nature. He has shown here one or two such cases and expressed that opinion at the time, and also when Dr. Fox presented a case of Raynaud's disease on the hands and feet of a young German. We know besides that in the pathology of scleroderma blood vessel lesions are very much in evidence. For these reasons he advised a Wassermann test, which turned out to be strongly positive. The patient has been put on specific treatment, and later he will report the case. So far as he knows, this is the first positive Wassermann test in scleroderma, and he does not consider it a mere coincidence.

He would advise the same test in Dr. Trimble's case, and eventually an energetic specific treatment.

DR. SHERWELL, referring to Dr. Lustgarten's suggestion, said that it has been his good fortune to see scleroderma and morphœa in several cases which were only apparently healthy, which would seem to bear upon his idea of its being specific in origin. That is negative, however, but would hardly coincide with its being of a specific nature.

DR. WHITEHOUSE said that there is a case in Dr. Bulkley's service at the Skin and Cancer Hospital where fibrolysin is being used; the arms and legs were involved, with considerable contracture of the elbows and fingers. There has certainly been a marked improvement in the arm since the treatment was instituted—there is much freer motion than before, although there has been no particular change in the sclerodermatous skin. 2 1-3 cc. were given once a week at first, and now three times a week by deep injection into the buttocks. There has been no constitutional disturbance, no dizziness nor nausea, as sometimes occurs, and it bids fair to prove of benefit.

DR. TRIMBLE said that he would be very glad to follow Dr. Lustgarten's suggestion and try the Wassermann test. The case did not seem to be much affected by the eight injections of fibrolysin already given, but he intended to try it a little longer; if it did not produce better results after twenty injections, antisyphilitic treatment would be tried, whether the Wassermann proved negative or positive.

DR. JOHNSON said that he had had under observation a woman who had had most of one forearm affected in this way, and it disappeared entirely during pregnancy, but returned during lactation. It is therefore among the possibilities that the same effect can be secured artificially.

Case for Diagnosis. Presented by DR. WHITEHOUSE.

Theresa C., aged ten years, one of three children,—the other two aged twelve and fourteen. Parents living and well. No history of miscarriages, skin eruptions, or tuberculosis. Present eruption began six months ago (in month of September), and is confined to the centre of both cheeks, lobes and rims of both ears, and the tip of the nose. The lesions are most extensive on the left cheek, where they form a patch covering an area of two inches in diameter. The patch is composed of segments of rings, which in turn are made up of nodules which are infiltrated and of a livid red color, devoid of scales or subjective symptoms. A smaller patch of similarly grouped nodules is present in centre of right cheek, and there are one or two nodules near the tip of the nose. Several smaller nodules are scattered around the rims of both ears and a few on the pendant lobes. There is no history of frost-bite nor change in the circulation of hands or feet.

DR. JACKSON suggested lupus pernio as a diagnosis.

DR. JOHNSTON suggested that it belonged to the group of tuberculides, and advised the trial of tuberculin tests.

DR. WHITEHOUSE said that the only conclusion he had reached was that it was a case of lupus vulgaris. He had intended to have the Von Pirquet test made, but she did not appear at time arranged. He hoped, however, to have this done later, and would report on it.

Purpura. Presented by DR. TRIMBLE.

The patient, a little girl aged four, from Dr. Fordyce's clinic, had large deep blue lesions over the lower part of the body. About ten days previously she had severe gastro-intestinal symptoms, and the lesions have been out for a week. She has been treated for "stomach trouble" for the past year, and on several occasions has had attacks of nausea and vomiting. She also has had conjunctival hæmorrhages in one eye, and several pin-head purpuric spots on the chest. The case was shown mainly on account of the size of the lesions on the trunk and thighs, which were about the size of a silver dollar. It did not seem to conform to the usual descriptions, and whether it was Schönlein's or Henock's or some other variety, was left to the members of the Society to determine.

DR. KLOTZ mentioned that Osler had particularly called attention to the fact that the skin lesions accompanying the cases of visceral crises show a great variety. In the present case they resembled erythema nodosum, but in others all kinds of lesions occur from simple urticaria to severe hæmorrhages.

DR. LUSTGARTEN suggested a blood examination, as acute or subacute leukæmia may begin with such symptoms.

DR. SHERWOOD said that of course it was not scorbutus, otherwise there would be more evidence on gums, etc. He had seen cases which he believed of that type which had made rapid recovery under ordinary tonics and stimulants. He recalled the case of a young adult who had an immense number of these spots from an attack of erythema multiforme, and the appearance of this child suggests a similar condition. The young man's family said that he was "mortifying," and he certainly looked like a blue-faced baboon. He recovered rapidly under tonics,—strychnine, arsenic, etc. The lesions were very pronounced, but he had no gum or mucous membrane manifestations. He believed this case of same nature.

DR. BULKLEY said that the lesions were so large and so irregularly defined that it was very like scorbutus. If he had charge of the case he would stuff the child on a lot of vegetable acid and see if that would not control the condition. He did not believe that the gums were necessarily affected in scorbutus. He had never seen lesions approaching this in size in purpura, and would certainly try anti-scorbutic treatment, lemons, onions, etc.

DR. TRIMBLE said that he did not present it as a case of Henock's purpura, but mainly on account of the size of the lesions. It is difficult to differentiate one from another except by the history of the patient. Henock's variety is supposed to be associated with erythema multiforme and some gastro-intestinal crises. The latter were present but the former was absent in this case. The patient also gives a history of having pains in the legs, which symptom was usually associated with the Schönlein variety.

Alopecia Areata in a Young Child. Presented by DR. KINGSBURY.

The patient is a bright, well-developed girl, four years of age. General health has always been good. She is said to have had fairly thick blond hair until two years ago, when small bald patches began to appear. These rapidly increased in size, and soon the case became one of the so-called malignant type. At present practically all of the scalp hair has been lost, as well as the eyebrows and lashes.

DR. BULKLEY said that he had seen it frequently in children, and in one case it had begun in the first year of childhood. It is not common, of course, and generally begins later.

Adenoma Sebaceum. Presented by DR. JACKSON.

Ellen H., aged sixteen. Patient stated that there was no history of the disease in the family; that she had always been healthy; and that the disease has never given her any trouble except its unsightliness. She stated that the first lesions appeared when she was six years old on the alæ of the nose and on the cheeks, and increased in number and size until she was fourteen years old. She thought that it was not as bad as formerly.

The eruption consisted of the usual vascular papules scattered over the nose and contiguous parts of the cheeks. The nose was markedly greasy, as in a bad *seborrhœa oleosa*. Upon the shoulders were a number of pedunculated fibromata.

The patient did not seem defective in mind, and was as much advanced in her school work as she should be at her age.

DR. JOHNSTON said that he did not think the diagnosis should be accepted without histological examination.

DR. FORDYCE thought the diagnosis could be accepted without histological examination. There was no question but that in most of these cases the sebaceous glands have played a very unimportant part, the principal changes being found in the connective tissue and blood vessels. So far as the type went, it was very distinct.

DR. DADE said the name is misleading. He had had several cases examined and none of them showed the sebaceous glands to be involved, but as a clinical type everyone understood the term now and it might as well stand for the present. Liquid air he had found the best treatment, same as for the other forms of *nævi*.

DR. LUSTGARTEN agreed that the name is misleading. The condition is a good clinical type and should have a name of its own, but so long as no other name has been agreed upon, we had better continue the old denomination.

DR. WHITEHOUSE agreed with the diagnosis.

DR. JACKSON said he presented the case now as he intended treating it with carbonic acid snow, and subsequently presenting her to the society.

Case for Diagnosis. Presented by DR. WHITEHOUSE.

Young girl, eighteen years of age, with very fair hair and skin, presenting an eruption of flat wart-like lesions covering the greater part of right half of forehead and extending a short distance into the hair. They are yellowish-red in color, some discrete but others fused together in patches. On the left temple are a few scattered lesions capped by a whitish scale. Smaller pin-point to pin-head sized lesions are scattered over the cheeks, and there is a small group at either corner of the mouth, with a few on the chin and neck. There are likewise one or two on the forearms, and the remains of a few small common warts are on the backs of the hands.

The eruption began a year ago, but has spread rapidly and itched a good deal during the past few weeks, while she was taking some "complexion medicine." The scalp is entirely free of seborrhœa.

DR. BULKLEY thought it was simply a case of multiform warts, but with a nævoid tendency.

DR. SHERWOOD said he would simply call it a warty growth.

DR. LUSTGARTEN and others thought it was verruca planum.

DR. WHITEHOUSE said that was the only thing that suggested itself to him, but the unilateral tendency might be considered peculiar, although it was not strictly unilateral.

DR. KLOTZ said that he had recently seen a somewhat similar typical case in a boy where the warts appeared every fall for four years, and disappeared in the summer. That would hardly fit with nævus.

Widespread Pigmentation. Presented by DR. JOHNSTON.

The boy, aged seven, had had the condition for four months. The pigmentation is "café au lait" distributed over the whole trunk and extremities in rounded patches an inch in diameter, and in broad bands about the chest. Certain smaller lesions about the neck showed a central pigmentation. There are no wheals, no itching, but there is slight papillation incident here and there. General adenopathy exists. In view of Dr. Dade's familiarity with the early history of this case, Dr. Johnston was willing to accept the diagnosis of syphilis. Two Wassermann reaction tests had been done, the first negative, the second positive.

DR. BULKLEY said that it was undoubtedly syphilitic.

DR. FOX called attention to the fact that in many cases the maculo-papular pigmentation disappears, but occasionally it remains, particularly in the upper portion of the triangle. The color of the hair seems to have nothing to do with that. It was difficult to explain why it occurs in some cases and not in others.

DR. FORDYCE said he had recently seen a case of pigmentary syphilide over the trunk which was of the exact type as that seen on the neck in brunettes. He did not know whether in this case there had been any antecedent macular lesions. The pigmentation in the case in question was not like that which sometimes follows the involution of a macular syphilide; it was a reticulated pigmentation like the form met with on the neck.

DR. WHITEHOUSE agreed that it was most peculiar and unusual to see such a pigmentation; the eruption preceding it must have been very diffuse.

DR. FOX said that the so-called pigmentation syphilide is not a pigmentation at all; it is a leucoderma following syphilis, with the pigmentation forming reticulate patches. It forms around the whitish skin, which represents the site of the syphilitic lesions.

Tuberculosis Verrucosa Cutis of the Hand and Extensive Lupus Vulgaris of the Face and Neck. Presented by DR. WHITEHOUSE.

The patient is a man of middle age engaged in stable work. The disease began seven years ago and is of the characteristic verrucous type on the back of right hand, knuckles and fingers, and diffuse lupus vul-

vargis type covering almost the whole face symmetrically, extending with an infiltrated advancing border to the root of the neck. Its symmetrical distribution and diffuse character simulate lupus erythematosus very closely.

DR. WHITEHOUSE said that some months ago he had presented a patient with tuberculosis verrucosa, whose child had a lupus vulgaris of the cheek which had evidently been conveyed from the father. In this case the two types appeared in the same individual.

Tuberculosis Cutis Verrucosa. Presented by DR. TRIMBLE.

Man, aged thirty-three. Russian by birth. Case from the Fordyce clinic shown mainly on account of the number of lesions. One characteristic lesion on the dorsum of the right hand encroaching on back of thumb, another on the anterior aspect of the left wrist and two lesions on the buttocks. They are dusky-red, papillomatous, and have the usual characteristics of skin tuberculosis. One patch on the buttocks has been treated by curettage and cauterization, and one on the hand with carbon dioxide snow.

Lupus Vulgaris. Presented by DR. WINFIELD.

The patient was a male aged sixty. The disease was situated on both nates and extended well down over the back of the thighs. The first manifestation of the disease was observed when the patient was about seventeen years of age. He had been treated by all of the best dermatologists in Europe and America, but the disease had not been cured until now, which has been accomplished by radiotherapy. The diseased area had been rayed, three times a week, for nearly two years. The lesion was now entirely cured. The case was shown to illustrate the good effect of the X-ray in this disease.

Case for Diagnosis. Presented by DR. FORDYCE.

The patient was shown before at the last meeting of the Society for diagnosis, and it was then thought by some of the members present that the lesions in her mouth and on her hand might be due to mercury or potassium iodide, as she stated that she had been taking some drug during the evolution of the eruption. A further investigation of the case, however, had convinced Dr. Fordyce that these lesions were not due to drugs, as he had ascertained that she had taken neither mercury nor potassium iodide. Since she was presented last month she had had a number of outbreaks of bullous lesions about her hands and in her mouth. Her gums continued spongy and bled readily on irritation. The palms of her hands and her fingers were red and shiny, and the skin had a somewhat atrophic appearance. A similar condition was present over the face. The question of diagnosis was still doubtful, but the case presented more evidence of a pemphigus than any other affection.

DR. BULKLEY, referring to the lesions on the face and hands, suggested a possible acute form of lupus erythematosus, developing rapidly. He had seen it on the backs of the hands many times.

DR. FOX said that the case had improved very much during the past month, and he thought that if Dr. Bulkley had seen it a month ago he would not have thought it looked much like erythematosus lupus.

DR. BULKLEY said that he would like to see her after being put on Thompson's solution of phosphorus—ten drops three times a day, and gradually increased to forty drops three times a day, guarding against liver disturbance with purgatives. He had seen some remarkable results with lupus erythematosus under this treatment.

DR. FORDYCE said he was sorry not to receive more suggestions regarding the diagnosis. He did not see how it could be considered as a case of lupus erythematosus, as she had none of the characteristic atrophy of that affection. The lesions did not begin as a lupus erythematosus, but as a bullous eruption. Those in the mouth did not suggest that disease as they were entirely too acute in their development, and gingivitis which was present here is not met with in that affection. She has been growing perceptibly weaker, though perhaps this was due more to her inability to take food. The case will be carefully studied and presented at a later meeting of the Society.

DR. ELIOT said that all the cases of epidermolysis he had seen had begun at birth.

DR. LUSTGARTEN thought that it was a case of malignant pemphigus, of rather slow development, and suggests systematic taking of temperature. Rises of temperature would tend to confirm such a view.

Case for Diagnosis. Presented by DR. KINGSBURY.

Patient is a student twenty-five years of age. He was born in Brazil and has been in this country but five months. On the back of his left hand is a peculiar inflammatory granuloma about one and one-half inches in diameter. This is said to have been present for over seven months. The border is elevated and smooth, but the centre is somewhat depressed and at this point there has been superficial ulceration. Lymphatics in forearm are slightly enlarged but are not tender. No other lesions on body. Patient states that he has seen natives in the interior of Brazil with similar sores, and believes that the condition is the result of a bite of an indigenous insect.

DR. JOHNSTON suggested that it was fibroblastic sarcoma.

DR. FORDYCE was not willing to make a diagnosis and expressed the opinion that a positive diagnosis could only be made by histological and bacteriological examination. It was a granuloma of some type and might be peculiar to the country from which he came.

DR. LUSTGARTEN said that it was probably some form of tropical disease, though if it had been an endemic tropical disease the patient would probably have known it. The patient said that histological examination had been made.

DR. SHERWELL said that it looked to him like one of those endemic diseases, peculiar to some localities, like Aleppo button; Delhi boil, and erosion, and cauterization would probably cure.

DR. KINGSBURY said that it did not to him suggest sarcoma or malignant growth. Being unable to make a definite diagnosis it was, however, convenient for the present to regard it as some form of tropical disease.

Leprosy. Presented by DR. KINGSBURY.

The patient is twenty-nine years of age and was born in Canton, China. He has been in this country for the past eight years, and during all this time has worked in laundries in Eastern cities. He is small and poorly nourished, weighing but ninety-four pounds. History is incomplete and unreliable. He admits that he had spots on his body over four years ago and that for nearly two years he has been unable to straighten his fingers. Face is said to have been affected for only one year. There are numerous fine scaly patches on back, chest, and extremities. These vary in diameter from two to seven inches. An irregular shaped patch covering an area about equal to that of a silver quarter is found on the glans penis. The face is considerably swollen, and facies leontina is so characteristic that a diagnosis of the disease can be made from a single glance. The nerve trunks are thickened and there are numerous areas of complete anæsthesia. Fingers of both hands are contracted, particularly the little and ring fingers. Marked muscular atrophy. Scalp, hair and eyebrows thin.

DR. BULKLEY said that the lesions on the arm were not usual. He had seen many cases of leprosy and had recently studied 234 cases in the Philippines, but to have so much on the face with so little on the body is rather unusual, and the ears are very slightly affected for so severe a case.

Xanthoma Palprebrarum. Presented by DR. DADE.

This patient was presented to show the result of liquid air treatment. The plaques on the lower eyelids had been treated and apparently with such satisfaction to the patient that he returned to have the plaques removed from the upper lids also. This will be undertaken and the results shown later. It is unusual that these lesions should appear in one quite so young—the boy is but nineteen and the plaques are very extensive, especially on the upper eyelids.

DR. BULKLEY suggested that there might be danger in using the snow so close to the eye. He had always treated such cases in his office with nitric acid, applying it with a match, and then neutralizing it with a little soda or something of the kind, so that no harm would be done. That is the simplest way of treating it, and he has treated many in the office this way, leaving scarcely any scar. There is a little redness, but when that is gone the patient does not notice it. He has found nothing that is so satisfactory.

DR. FOX said that after trying excision and various kinds of acids he has reached the conclusion that the electrolytic needle is the most efficacious and quickest form of treatment, and he knows of nothing else that compares with it.

DR. FORDYCE said that he treated cases with the electrolytic needle with much success.

DR. JOHNSTON said that he has been using trichloroacetic acid, as suggested by McGuire, and has had uniform success. It is quick in its results, never requiring more than four applications. In one case the lesion covered the whole upper lid. He applies the acid crystals until the skin turns white, and then neutralizes it with alcohol.

DR. TRIMBLE said that he understood fully that Dr. Bulkley meant only to touch the lesions very lightly with nitric acid, but it seemed an appropriate time to mention a little clinical observation about this acid that he had noticed in the hospital for a number of years; which was that a keloidal scar was more apt to follow cauterization with this acid than with any other. He had noticed this in treating chancroids with nitric acid, and had also observed it in other lesions treated with nitric acid. In one case of verruca vulgaris, rather marked keloids followed its use—whether this last patient had a skin with a tendency to keloid formation, or whether it was simply the result of the acid, he could not say; however, the same result had not occurred when trichloracetic, carbolic, and other acids had been used.

DR. BULKLEY said that the acid should not be applied deep enough or strong enough to cause a scar—but simply touch the surface lightly. It peels off in a week or so, and he has never had any case of keloid following its application.

DR. FOX suggested that this difference of opinion could readily be settled in a case like this where there are a number of patches, by using trichloracetic acid on one, nitric acid on another, and applying electrolysis to another.

DR. WHITEHOUSE, referring to the question of keloids following the application of acids, said that such an occurrence was not uncommon. Only that day a patient with verruca vulgaris came to the Demilt Dispensary who had applied hydrochloric acid himself to lesions on the arm and back of the hand, and both places have keloidal growths. The sites of the other lesions which had been removed by salicylic acid and collodion are not so scarred. As for using nitric acid on the xanthomatous lesions on the eyelids, he has had absolutely uniform results by this method, sometimes with only one application. Of course it requires care to use the right amount, but the cases heal with scarcely any scar. The question had been asked whether it was safe to use the carbon dioxide snow so near the eye. With the little spoon used by the eye men placed under the lid you can use all the pressure you need, and it can be used safely, but from the effect we know these freezing mixtures have on the skin he did not see how it would be of value in this class of growth.

DR. SHERWELL said that in his opinion the success in treatment of these cases depends largely upon the familiarity with the means the doctor employs. One man will get good results from one thing, and another from another thing, according to his experience.

DR. DADE said,—referring to the possible danger of using the freezing process near the eye,—that he had taken off nævi from along the ciliary border of the upper and lower eyelids, but he had never applied it with much pressure to the upper eyelid until he had first tried it on rabbits some two years ago. The liquid air was then applied with sufficient pressure so that after healing the hair was removed from the eyelid of the rabbit and the eyeball was uninjured. He would have no hesitation whatever in applying it to the upper eyelid now.

DR. SHERWELL said that he had used two or three applications of acid nitrate of mercury in sixty per cent. solution, afterwards neutralizing and has never had any resultant keloid.

Diathetic Prurigo. Presented by DR. JOHNSTON.

This patient had been presented before the Society some time ago, and has now been under treatment for a year and a half. When he first applied for treatment his entire skin was so thick that it could not be pinched up. Marked improvement began when he was treated with the autolyzed extract of the thyroid gland by injection. A full report of the case will be found (Case XI) in the *N. Y. Med. Journal*, vol. 89, Nos. 11, 12, and 13, 1909).

DR. KLOTZ presented the photographs of gummatous infiltration of the knee of a boy twelve years of age, mentioned at the last meeting.

Also the photograph of a peculiar gummatous infiltration on the leg with numerous necrotic foci, which healed under injections of salicylate of mercury.

BOSTON DERMATOLOGICAL SOCIETY.

November, 1908.

DR. GEORGE T. HARDING in the chair.

Fragilitas Crinium. Presented by DR. T. S. BURNS.

A girl, nine years of age, showed a pronounced affection of the hair. On the entire scalp the hair was irregularly thinned, very dry and textureless. On close examination it was seen to be split and fractured, causing great variation in length, and on palpation gave the impression of a piece of dry moth-eaten fur. Except for mild furfuraceous seborrhœa and a thin *paniculus adiposus* the scalp showed no pathological change. Microscopic examination of the hair and scalp revealed nothing significant. In milder degree the child had had the affection since early childhood. A year ago, after recovery from pneumonia, the affection of the scalp began to grow much worse. The child was of poor Jewish parentage, pale and evidently under nourished.

It was the prevailing opinion of the Society that *fragilitas crinium* should be classed among the trophic disturbances of the hair; dependent on conditions outside the hair rather than due to an intrinsic pilary disease. So far as was recalled no facts had been adduced to prove the process to be of parasitic origin.

Paraffine Prosthesis. Adverse Effect of. Presented by DR. J. C. WHITE.

For the removal of wrinkles of the forehead, a young woman consulted an advertising medical company. To accomplish their removal injection of paraffine was recommended as a safe and effectual procedure. Soon after the injection of the paraffine, however, much of it gravitated down the sides of the nose into the subcutaneous tissue of the cheeks. In an attempt to remove the disastrous effects of the paraffine the same medical company further aggravated the condition by making a perpendicular incision, two inches in length, over the mid-frontal region. On healing, this incision, which was devoid of any benefit, left a depressed puckered *circatrix*, greatly augmenting the unfortunate disfiguration. The patient was a well-developed young woman with naturally comely features. The skin of the middle third of the frontal region was thickened, reddened and glossy, giving somewhat the impression of *scleroderma*, with a depressed puckered scar in the median, two inches in length. The shape of the nose was much distorted by thickening of its lateral surfaces.

On the cheeks the skin was in a similar condition to that of the forehead, except that the subcutaneous thickening was nodular in character, producing a corresponding irregularity of the cutaneous surface.

Under discussion the patient's condition was deplored and the procedure unanimously condemned. Dr. Burns said that this patient had sought relief from her deformity at the Massachusetts General Hospital last summer, where she remained until it was determined that the infiltration was due to organized connective tissue, which had replaced the paraffine. This observation is in accordance with several of the recent investigations relative to the fate of paraffine injected beneath the skin, viz: that the paraffine is absorbed and replaced by connective tissue. The outlook for the patient seemed hopeless. It was the consensus of opinion that nothing could be done for her relief.

Syphilis Hereditaria Tarda. Presented by DR. C. M. SMITH.

A young woman, twenty-three years of age, had had lesions on the extensor surfaces of the elbows and forearms for the past eight years, consisting of papules and tubercles of deep red color which in evolution usually ulcerated, became crusted and eventually healed with the formation of a scar. Over the legs were several scars for whose origin no account could be given. The anterior tibial ridges were thickened and irregular, but insensitive. Two years ago the patient was treated at the Massachusetts Eye and Ear Infirmary for interstitial keratitis, the opacities from which process were evident over the corneal surface. The patient had no knowledge of her early personal and family history, as she had come to this country from Poland when quite young without her parents.

Secondary Syphilis. Presented by DR. C. M. SMITH.

The patient exhibited a generalized papulo-squamous syphilide. At the flexures of the elbows the lesions had an unusually bright erythematous hue. In addition the patient showed a typical pharyngitis, mucus plaques and generalized adenopathy. The constitutional symptoms began to appear five weeks ago, following an initial lesion of the prepuce. The interest in the case lay in the unusually bright hue of the syphilide.

A Case for Diagnosis. Presented by DR. G. T. HARDING.

The patient was a man forty-two years of age, married and born in Vermont, of American parentage. The first notice of any trouble with the skin was eight months ago, when a fine papular eruption appeared on the forearms and legs which itched intensely. For this outbreak he used cuticura remedies, but without relief. Soon the eruption became pustular and more generally distributed. Two months later the skin of the abdomen began to turn brown, the color soon extending to other regions, particularly those previously affected. The report of a local physician whom he consulted at that time was that the skin was in a squamous eczematous condition with many follicular papulo-pustular lesions on the arms, legs and abdomen. Three months later the pustular lesions had in-

creased, occurring with particular profusion on the anterior thoracic region, abdomen and posterior surfaces of the thighs and extensor surfaces of the forearms. On the abdominal region there was a remarkable demarcation of the eruption in the median line. At the sites of many of the older lesions were numerous small cicatrices. Treatment from a local physician had consisted in the administration of potassium iodide and Fowler's solution internally. Externally various lotions and X-rays had been used.

For the past twenty-seven years the patient has worked in an iron foundry. Previous to his present illness his skin had always been healthy. For twelve years, in connection with his work, he has used a liquid called "Stuart's Liquid Cane Compound," but neither he nor any of his co-workers had ever had their skins irritated by it. In his work he is much exposed to dust, smoke and heat; his face and arms directly. The previous health of the patient had been excellent except for measles at sixteen years of age and jaundice ten years later, from both of which diseases he fully recovered. The family history reveals nothing of importance; both parents lived to be eighty years of age. Since the skin has grown worse and he has taken so much medicine he has felt "used up" most of the time. Although a brunette his skin was not formerly noticeably dark.

No definite diagnosis was agreed upon in this case. The greater part of the eruption seemed acneiform in character and suggested an external origin as to cause, such as tar or some other similar irritant capable of producing a particular eruption. Possibly the potassium iodid had aggravated an already existing dermatitis venenata.

DR. HARDING said that by daylight many of the papular lesions had a lichenoid appearance.

The pigmentation he thought might have arisen from the prolonged irritation of the skin, though for its peculiar demarcation on the abdomen he could not account.

Dermatitis Papillaris Capillitii. Presented by DR. C. M. SMITH.

This case showed numerous firm indurated papules over the back, interspersed with many small keloidal scars. The process was of six years duration and occurred in a Polish Jew forty-five years of age. His simple faith in treatment and directions was noteworthy. When told by his physician to "use this for two weeks" he suited the action to the word literally, for when he returned two weeks later the prescription, paper and ink, was still firmly bandaged on his neck.

Lupus Pernio? Recurrent Erysipelas? Presented by DR. H. P. TOWLE.

The history of this affection is indefinite, but the disease had evidently existed for a considerable length of time before the patient's first visit to the skin clinic at the Massachusetts General Hospital, October 16,

1907. There was present at this time on the right cheek a flask-shaped area with the neck resting upon the nose which projected slightly above the general level. The overlying skin was a dusky red, shading off into the narrow rather pale zone which surrounded the whole. On palpation was felt a firm doughy mass apparently lying deep in the skin, with fairly well defined, smooth, indented edges. There was no heat or tenderness. The nose was slightly swollen. The skin over the left cheek was normal. There were no subjective symptoms beyond an occasional mild burning. The general health was excellent. This lesion persisted without noticeable change all winter. In the spring the nose was operated upon for the removal of some defect on the septum. For a time the conditions over the cheek and nose seemed to have been improved by the operation, but recently they have grown worse again. April 3, 1908, a soft elastic, fairly well defined band of considerable thickness could be felt running from the median line of the nose outward over the right cheek for about three inches. The skin overlying the band and for some distance on either side was pale red and slightly swollen. On the left cheek below the eye was an erythematous area about two inches in diameter, without any other demonstrable change in the skin. The patient stated that she had been suffering recently from attacks of nausea, but without vomiting. The menstruation was regular but scanty. With the onset of warm weather the affection gradually disappeared. There was no return until October 22, 1908, when the left cheek became red. Now there can be felt on the right cheek at original site a doughy mass over which the skin is nearly normal. On the left cheek is an irregular reddish area extending nearly to the nose, and very slightly infiltrated. During the whole course of the affection there have been only intermittent signs of a disturbed digestion which, except last spring, have occurred without apparent connection with the skin manifestations. The heart, lungs and urine have not been abnormal. Treatment has usually seemed to have had but little effect, although there was considerable improvement under the use of hot water, as hot as could be borne, applied locally morning and night.

Syphilis, Extragenital Primary Lesion of. Presented by DR. TOWLE.

The patient, a young woman, came to the Massachusetts General Hospital Surgical Department October 1, 1908, for the relief of a supposed abscess. Six or seven weeks before a small lump had appeared on the boarder of the chin at about the middle of the jaw. As this lump gradually increased in size various forms of treatment were used, most of them irritating. One or two weeks ago the sore place was washed with vitriol. The application was soon followed by great swelling of the whole region about. The surface of the lump broke down in places and discharged pus. The patient was seen in consultation at the Surgical Department. At that time the whole area from the ramus of the jaw

forward to the mouth and above and below the jaw was very greatly swollen. The skin was fiery red, stretched and shining except at about the centre of the swelling, where the tint was grayish-red. The whole swelling was firm, indurated and elastic. The grayish central area, however, was distinctly firmer and less elastic, so that it could be easily distinguished from the surrounding infiltration by touch as well as by sight. The surface over the central area showed several small points from which pus oozed, suggesting in appearance a kerion. The glands beneath the jaw were much swollen. On the body was a fading macular eruption with sparse papules. In the course of two weeks the swelling surrounding the central portion disappeared, leaving the firm, circumscribed, much elevated lesion now present. A smear from the lesion showed spirochætae present.

F. S. BURNS, M. D., *Secretary*.

MANHATTAN DERMATOLOGICAL SOCIETY.

Seventy-second Meeting, November 6, 1908.

DR. A. BLEIMAN, Chairman.

Lichen Planus Unguium. Presented by DR. W. S. GOTTHEIL.

Mr. G. V., twenty-nine. First treated by presenter in December, 1902, for what appeared to be a chronic eczema of the anus, but which was entirely recalcitrant to treatment and continued to spread. About March 1, 1903, the first typical lichen planus lesions appeared on the sheath and glans of the penis, and the perineal and circumanal eruption assumed a form that left no doubt as to its nature. Mucosæ and nails free. The eruption almost cleared up about the middle of April, 1903. Patient was not seen again until about two weeks ago. Gives the following history: A short time after the skin eruption got well the affection of the nails began. Paid little attention to the condition, which gradually spread to all the nails of his fingers and to some of the toes. Recently he had, and still has, an eruption very similar to that which he had in 1902.

October 13, 1908. Examination shows the presence of an eruption sharply limited, flat papules, slightly scaly, on the glans and sheath of penis. Many are discrete; others are fused into a chronic eczema-like mass. The individual lesions are more or less angular in outline, not characteristic in color, are permanent and are increasing very slowly in size.

The patient has observed the progress of the nail affection and is very definite in his statements as to the course. A small flat black mark appears in the proximal portion of the lunula, and slowly advances, apparently as the nail grows. Pin-point size at first, it finally becomes as

large as a pin-head. Has tried to scrape off these spots but never succeeded. Several times had scraped through the entire thickness of the nail, down to the spot, but never saw any fluid. As the black spots advance towards the free edge of the nail, the lamella over them splits, the dark contents being removed mechanically by the patient. The lesions then progress to the free edge of the nail as small open depressions surrounded by more or less ragged and brittle nail substance. Examination showed all the nails of both hands and several of the toe-nails to be affected. The presenter regards the nail affection as lichen planus. The original papules and subsequent pressure atrophy with splitting of the superincumbent nail plate, the minute pitting without much other deformity of the nail bed or plate, form a picture that does not resemble, in his opinion, any of the other common nail affections. That the disease is very rare is evidenced by the fact that Heller can cite no case, even out of the literature, and devotes his section on lichen of the nails, to lichenoid eczema of the nails, and the change as seen in pityriasis rubra pilaris.

Fibroma of the Hard Palate. Presented by DR. E. W. DITTRICH.

E. B., eleven. About six years ago fell with a pencil in her mouth and injured the hard palate just behind the incisors. A soft mass formed at the site of the injury and slowly disappeared. Five years ago again injured in the same way; no mass noted. Four years ago present condition was accidentally discovered and has not increased in size since first seen by the child's parents. The entire palate vault is occupied by a lobulated, freely movable, hard mass, apparently connected to the palate by a smaller pedicle. A portion was examined by Dr. Satenstein, who reports same to be a fibroma durum.

Lichen Planus with Extensive Lesions of Mucous Membrane of Mouth and Tongue. Presented by DR. B. F. OCHS.

Mrs. W., forty-four. On the dorsum of the left hand, and on the left brow are patches of typical lichen planus. On the extensor aspects of the forearms are isolated lichen planus papules. In the buccal mucosa are numerous pin-point, slightly elevated, greyish-white discrete papules. On the tongue, the mucous membrane is studded with aggregate greyish-white papules looking like a solid coating. In some spots the superficial epithelium is gone. In the mucosa of the lips are circular groups of similar papules. The entire soft palate is similarly affected. The vaginal mucus membrane also shows these papules. The only subjective symptom in the mouth is severe burning.

Tuberculosis Verrucosa Cutis, of the Foot. Presented by DR. ABRAHAMS.

Boy, nine. Family history negative. Five years ago right foot be-

came inflamed and swollen; cause unknown. Dorsal and plantar incisions were made and wounds drained. Recovery was prompt. A few months later the foot again became sore. Near the incisions small warty excrescences appeared and grew in size and numbers. At present the entire foot is enlarged. The bones are swollen but not tender. On the dorsum of the foot is an elevated warty non-ulcerated mass. The case is presented for suggestions as to treatment.

DR. GOTTHEIL believed that actinotherapy would give the best results.

Mycosis Fungoides, Pre-fungoid Stage. Presented by DR. W. S. GOTTHEIL.

Mr. M. K., forty-seven. Came into presenter's office in early part of November of this year, weeping and groaning and tearing at his skin. From the evident intensity and generalization of the itching and the plaques visible on his face and forehead the diagnosis of mycosis fungoides could be made even before examination. This latter revealed a marked and advanced case of the disease, the entire body being more or less covered with various sized, sharply limited, slightly raised, pinkish plaques. The patient had been under treatment at Mount Sinai Hospital for a number of years, mainly with the X-rays. He got nearly well for a time, but the disease promptly relapsed. At present he has a radio-dermatitis of the buttocks which gives him great trouble and this, together with the loss of sleep, etc., has put him in his present bad state.

DR. OULMANN saw this patient four years ago, and treated him for two years. At that time he was in the eczematous stage of the disease.

Acne Varioliformis. Presented by DR. W. S. GOTTHEIL.

Mrs. L. J., forty-three. For past six months has had an eruption confined to the temples, forehead, anterior margins of the scalp, ear, nose, and side of the neck. Rest of body surface free, internal organs sound, functions normal. The lesions and their remains are characteristic; firm, reddish-brown papules, pin-head size at first, growing to pea-size, similar ones with beginning deep-seated pustulation of small amount, and rapidly drying up into dark brown necrotic crusts; when this falls off, slightly pigmented and depressed circular scars are left. The lesions are very abundant in this case, the whole area affected being studded with them or their remains. Very characteristic of the affection is the fact that active lesions and remains of past ones are present on the alæ nasi, temples, the inner concha, and the sides of the neck.

Naevus Verrucosus, Congenital. Presented by DR. A. BLEIMAN.

Miss S., eighteen. Present condition since birth. No increase in extent for last ten years. The lesion is composed of closely aggregated

warty excrescences, pin-head in size. Area affected, begins just below the margin of the lower lip, extends downward, exactly in median line to chin, then to neck, where it passes a trifle to the right, to a point corresponding to the cricoid cartilage. The upper portion is pale and about three-eighths of an inch in diameter. The lower, is deeply pigmented, very irregular in outline and about one-quarter of an inch in diameter.

DR. GEYSER remarked that while the high frequency carbon electrode could be used in this case with good results, he would advise excision and suture.

Psoriasis of the Nail-Bed. Presented by DR. W. S. GOTTHEIL for DR. A. ROSTENBERG.

Male, upholsterer, thirty. Has had psoriasis of the body since his thirteenth year. Three years ago noticed small greyish spots on the lunulæ of several nails, which spread towards the centre and then disappeared, reappearing after a short time. Also noticed that the ends of the nails became similarly affected. The ends turned dark brown, became very brittle and rapidly increased in thickness. Examination at present shows all the nails affected as above described.

Annual Syphilide, Generalized. Presented by DR. J. KINGSBURY.

N. N., twenty-five, Bohemian. The man is strong, well nourished and apparently in general good health. Gives indefinite and unreliable history as regards chancre and early secondaries. For past six months, however, he has had an annular eruption on face, trunk and extremities. When first seen about three months ago, there were over two hundred of these lesions, varying from one-half to two inches in diameter. Many of them have since disappeared; but as the treatment has been irregular and inadequate new ones have developed from time to time. At present there is considerable pigmentation on the back, at the site of the previous lesions. There are characteristic rings around the nostrils and upper lip, and numerous ones on the upper extremities. In several places on the trunk, intermingled with other rings, are some small rings enclosed in large ones.

Lupus Pernio. Presented by DR. L. OULMANN.

Mr. P. S., forty-six, brewer. While serving in the army, twenty-six years ago, his ears were frozen. Noticed no further trouble until six and one-half years ago. During August, his ears became red, itched and burned, and finally became covered with thin crusts. During the following year the ears got well under various kinds of treatment. A little later the disease broke out again, and spread to both ears. The skin became ichy and burned, and was more or less crusted. This has

persisted summer and winter in the same way for past five years. There are a few red nodules on the edge of the ears, best seen under glass pressure. The skin is bluish-red and sometimes moist and crusted. Rest of body free.

Favus; Results of X-Ray Treatment In. Presented by DR. A. C. GEYSER.

Miss F. H., fifteen. Presented herself at the Cornell Clinic last fall, with three favus lesions, upon the scalp. They were typical in appearance, were said to have been present for a number of years and were each about the size of a fifty-cent-piece. Treatment. Two of the lesions were selected and the Cornell tube directly applied to each for ten to fifteen minutes. Eight such exposures were made. To-day, or after six months of treatment the two lesions remain cured. The areas are devoid of hair, but the skin has a normal appearance. The untreated lesion still remains and is now receiving similar treatment.

Dermatitis Papillaris Capillitii; Treated with the Solid Carbon Dioxide Ice. Presented by DR. E. W. DITTRICH.

L. G., twenty-one. Russian. About ten months ago patient noticed a number of "pimples" on the back of his neck; they slowly increased in size and numbers. The papules were hard, shiny, aggregated with tufts of hair growing between them. A fifty per cent. salicylic paste was applied without marked results. The carbon dioxide ice was then used. Two applications, with moderate pressure, for forty seconds. Where the applications were made the papules are almost gone. The treatment will be continued and reported on later.

M. B. PAROUNAGIAN, M. D., *Secretary*.

REVIEW of DERMATOLOGY AND SYPHILIS

Under the Charge of GEORGE M. MACKEE, M. D.

BENIGN NEW GROWTHS.

By UDO Y. WILE, M. D., New York.

Cases of Tattoo Keloids. WELANDER (*Nordiskt Med. Arkiv*. 1908 *Abt.* 2, vol. 2).

This author, in 1893, described one patient with numerous ordinary keloids on the body, many of which, however, were localized on areas where he had been tattooed. The curious feature of the case being, however, that the keloids appeared only in places where the patient had been tattooed red, and not in a single instance where the tattoo was blue. In 1907 the author observed two cases at the same time, in both of which keloids had formed at the site of red tattoo marks and no keloid had formed at the site of the blue tattooing. Histological examination, however, cleared up the reason as follows: It was found that where blue dyes had been used the pigment lay in more or less diffuse clumps, whereas the red dye (cinnabar) appeared as pointed crystal-like angular masses, and the author believes that this angular arrangement gives rise to a constant irritation and in individuals predisposed leads to keloid formation.

Fibroma Pendulum Giganteum. DELBANCO & SCHRADER. (*Monatsschrift f. prakt. Dermatologie*. Bd. 48 No. 7.)

The authors give their clinical findings in a woman of forty-eight, who, when first seen by them, showed, hanging from the middle of the right labium majus, a large pedunculated tumor, measuring 28 c.m. in circumference and about 10 c.m. in diameter, through its thickest part. The history showed the tumor to have been of six years' standing, having apparently started with a circumscribed thickening in the labium itself. Fearing that it was a malignant tumor, the patient had not had medical advice, until first seen by these observers. On removal the tumor was found to weigh about 500 grams, (German pound),—it was covered with thin reddish skin, and here and there near the surface could be seen numerous dilated, almost varicose veins. The pedicle was 10 c.m. in length and about a finger breadth in thickness. The microscopic exami-

nation of the tumor gave no clew as to its genesis, although the pathological diagnosis was clearly that of fibroma. According to Unna, the so-called molluscoid nævi, can, by a process of fibrosis, become true fibromata, but in this case the authors can find no trace of nævus cell elements. Microscopic examination of the pedicle showed an enormous richness in smooth muscle elements, particularly striking in the vascular walls. The skin of the pedicle was covered with thick epithelium with deep folds, the latter covered with a thick horny layer and here and there hair follicles and sebaceous glands, indicating a continuation as it were, of the skin covering the labium.

Pseudo-Xanthoma Elasticum [?] DR. P. L. BOSELLINI (*Archiv. f. Dermat. u. Syph.* March, 1909).

In this article Bosellini reviews the whole of the previous literature of that group of diseases, including pseudo-colloid milium (colloidoma) "pseudo-xanthoma elasticum" (elastoma), "colloid degeneration of the granulomata and scars," and "senile degeneration," pathological conditions which, he says, have an anatomical "affinity" in that histologically they all show a similar change in the collagen and elastic tissue. Clinically, however, the author believes these entities can be differentiated, and he gives a long table, showing the distinctive characteristics and differential diagnosis between pseudo-colloid milium and pseudo-xanthoma elasticum. The case which he presents with the diagnosis, pseudo-xanthoma elasticum [?] is as follows: The patient, a woman of forty-five, presented herself with a symmetrical eruption of six or seven years' standing on the forehead, face and hands, consisting of pin-head to hempseed-sized raised, lead colored, herpetic looking lesions grouped, yet not confluent, non-inflammatory and at first sight giving one the impression of a vesicular eruption or possibly lymphangiomata. This impression, however, was at once dispelled by puncture of the lesions, which in no wise changed their appearance. On the hands the eruption, though symmetrical, was not so well defined, but appeared more as verrucoid, linear, nævus-like bands, but having the same leaden hue. Microscopic specimens cut from a lesion on the forehead showed the following histological structure: The epidermis showed little alteration, except for the large amount of pigment in the basal layer. The papillary layer was reduced to a more or less thick connective tissue, suggesting compression from the deeper layers of the skin. The middle layer of the cutis showed the main changes and these consisted, in scattered rounded foci, which gave rise by their presence to small surface elevations. The smallest of these foci proved to be made up of clearly separable regular elastic fibers, having the basophilic color reaction for elacin. The collagen in these areas is reduced in amount, and connective tissue cells were few in number. These areas Bosellini calls elastomata. Besides these there were

larger round or oval foci which consisted only of collagen, quite homogeneous in structure and basophilic in reaction. Scattered here and there, around the lesions there were numerous mast cells, around the vessels, fixed connective tissue cells but no sign of inflammatory elements.

In considering the diagnosis, Bosellini says: "The localization speaks more for 'colloidoma,' the curious color speaks neither for the latter or for pseudo-xanthoma, but the fixed position of the individual lesions and the inability to enucleate them is entirely peculiar to pseudo-xanthoma and histologically the picture stands in close relation to that disease." In conclusion he says: "We are dealing with a dystrophic, verrucoid appearing, slate colored lesion, localized on the uncovered parts of the body, fairly regularly grouped, symmetrical, slow developing and giving rise to no subjective symptoms." The ætiology unknown; anatomically the lesions consist in complex primary changes of the elastic tissue and in secondary changes in the collagenous elements, in the vicinity of the primary changes. While not exactly the clinical or microscopic picture of pseudo-xanthoma elasticum, this case, Bosellini concludes, certainly approaches in its character that disease.

Concerning a Clinically Peculiar Form of Pseudo-Colloid Milium. Dr.

ENZO BIZZOZERO (*Archiv. für Derm. u Syph.*, March, 1909.)

Writing from Jadassohn's laboratory in Bern, Bizzozero presents the following case: A man of fifty-eight years was admitted to the hospital suffering with genito-urinary tuberculosis; with the exception of the lesions on the nose to be described, the skin of the body showed no changes. On both sides of the nose, extending from the mucous membrane border of the nostril upwards to about 1 c.m., the surface of the skin was covered with very small, pin-point sized to pin-head sized papules, having the color of the normal skin, but possessing a definite polished surface, and having in most instances a minute plateau on the upper surface. Between them, here and there, were scattered minute capillaries. The lesions were so minute that they could well have escaped notice and the patient did not know their duration and felt only very slight itching. The clinical diagnosis could not be established and the diagnosis rested on the following microscopic changes. Under the low power were seen numerous small and large nodules, the latter causing rather prominent elevations of the surface epithelium and showing in the reconstruction by serial sections a hemispherical structure, a few, however, seemed almost pedunculated. Over the nodules the epidermis was, consequent to the stretching, more or less thinned. Immediately under the epithelium were found in the nodules well preserved connective tissue, but for the most part the nodules consisted of homogeneous masses or at most having a fine fibrillated appearance.

Staining reactions showed the lesions to possess a distinct affinity for

basic dyes. Occasional vessels, with well preserved endothelium, but with thickened hyaline walls were seen within the nodules, and the former were occasionally surrounded by an ill defined infiltration of connective tissue cells. Particularly striking was the sudden dilation of the small vessels running from below upward, immediately below and between the nodules. The development of the lesions could be clearly seen in certain places, where the collastin was seen to be collected into small masses, yet not large enough to cause elevation of the surface; in other sections these masses of collastin become larger, begin to raise the epidermis and finally develop into the homogeneous structures, with strong basic affinities. After identifying his case with pseudo colloid milium of other authors, Bizzozzero emphasizes the following points in his description:

1. The colloid masses develop not only fine elastin, but fine thin substance and collagen.
2. The distinctly nodular raised character of the lesions in his case; those described by others having been flatter.
3. The definite affinity of the colloid substance for basic dyes.
4. The presence of large, at times polynuclear cells, lying in dilated lymph and blood spaces, some of obvious connective tissue origin, others of apparent endothelial origin.
5. The striking blood vessel changes.
6. Finally the marked hyperkeratosis existing between the nodules and the widening of the follicular orifices which he thinks may be associated with the dilatation of the vessels.

BOOK REVIEWS

The Ready Reference Handbook of Diseases of the Skin, by GEORGE THOMAS JACKSON, M. D., Professor of Dermatology, College of Physicians and Surgeons, New York; Consulting Dermatologist to the Presbyterian Hospital, New York, and to the New York Infirmary for Women and Children; Member of the American Dermatological Association and of the New York Dermatological Society. Sixth Edition, Thoroughly Revised. With Ninety-nine Illustrations and Four Plates. *Lea & Febiger*, New York and Philadelphia.

This well known work has been so favorably received in the past that it seems superfluous to do any more than to notify our readers that it has again been revised, and to wish the book a continuation of well deserved success.

The clear, concise and accurate descriptions under ætiology, symptomatology, diagnosis and pathology, with the rational and easily understood classification, explains why the book has been so popular among undergraduates, while these facts combined with the careful consideration given to the subject of therapeutics makes the work of great service to the general practitioner, and also to the specialist.

In this, the sixth addition, besides a general revision of the text, new articles have been added upon black tongue, dermatitis verrucosa or vegetans, keratosis follicularis contagiosa, keratosis senilis, lichen obtusus, melung, pseudo-pelade and sporotrichosis hypodermica. Several new pathological additions accompanied with photo-micrographs are also noted. In short the work has been thoroughly revised and brought "up to date."

In a work on dermatology, suitable clinical illustrations are of the utmost importance, especially to those who do not have the advantage of clinical facilities. But to be of value, the cuts must be of the best. We are pleased to note that the new edition of the book under consideration has been considerably strengthened by the addition of a large number of very satisfactory illustrations. The work now consists of 737 pages of very interesting and instructive material.

G. M. M.

Syphilis Osseuse (Syphilis Acquisie), by DR. LOUIS SPILLMANN, with 21 illustrations. *G. Steinheil*, Paris.

This little book by Prof. Spillmann of Nancy, embraces 131 pages of text and twelve pages of photographs on the subject of syphilis of bones. It is possibly the one subject in lues about which not much has been written, from a clinical standpoint. The volume is divided into seven chapters: The first deals with the history of the subject in which one notes with regret that the author has confined himself almost exclusively to the work done by French authors. Heydenreich, Finger, Lesser, and Neumann and a few others, are the only authors not French, whose work is mentioned. Apart from this omission, however, the history is adequate in that it gives a brief, terse retrospect and serves as an excellent introduction to what follows. Chapter two deals with frequency of osseous syphilis, the period of invasion, and the localization of the lesions. The tables in this chapter are most instructive, the figures being those of Prof. Fournier, and Gangolphe, an analysis of 635 cases in one table with regard to time of appearance after infection, and 49 cases of Julien's and 945

of Prof. Fournier's with regard to localization and sex. The third chapter is brief and deals with the ætiology of bone syphilis—summed up in a few words, the predilection of the syphilitic virus for body tissues lies in 1°. The apparent predilection of the casual agent for lymphoid tissues, 2°. The presence in great abundance of such tissue in the immediate neighborhood of bones.—e. g. (medullary and sub-periosteal marrow). Important side factors, however, thinks the author, are: "Locus minoris resistentiæ," relative malignity and absence or insufficiency of treatment, and last and quite important is the element of trauma. Chapter five deals with the gross pathological anatomy of bone syphilis, and to the reviewer's mind, this chapter alone would pay for the reading of the book; the subject matter is thoroughly gone over; the lesions rationally classified on a pathological basis and accurately described. Chapter five takes up the clinical study and embraces forty pages of interesting description, including at the end, a brief note of the more frequent complications. This chapter, however, brings nothing new to light. In the sixth chapter, the differential diagnosis between tuberculosis, syphilis and pyogenic osteitis and osteomyelitis are discussed and the important points in the diagnosis in each are emphasized. The seventh and last chapter takes up the question of treatment, which in no wise differs in general from the treatment of lues elsewhere. The twenty photographs of various syphilitic bones are well worthy of study. All in all, this little book commends itself for its terseness and brevity, its accuracy, and the extremely easy and pleasant reading which it affords.

U. J. W.

Diseases of the Skin, by A. H. OHMANN-DUSMENIL, M. D. Third Edition, thoroughly revised and enlarged. 140 original illustrations. 1908. St. Louis. C. V. Mosby Medical Book & Pub. Co.

The author of this book closes his preface as follows: "If this small book proves of any assistance, and leads to a greater interest in the study of skin diseases, it will have filled the most earnest wish and desire of the author." We have looked over this volume carefully, and really believe it will stimulate a greater interest in the study of skin diseases; so far as being of any assistance, however, we have our serious doubts. "Very few exotic cutaneous affections have been taken into consideration," yet in the 593 pages, we see at least a page given to pityriasis rubra, lichen ruber, porokeratosis, psorospermosis, etc., etc. Indeed, in looking over the index, we fail to discover any dermatological entity which has not at least been touched upon, save alas! that group of skin affections which we are told includes ten per cent. of all dermatoses, namely, lues. The subject of syphilis is disposed of in one page, the subject, the author says, "will not be taken up here as it is too extensive . . . to dispose of in a few pages." We make bold to suggest that a book on dermatology intended for medical practitioners, should devote a considerable space to syphilodermata, even possibly to the exclusion of the so-called "exotic cutaneous affections," many of which cannot interest the American practitioners, as they have yet to be seen in this country. Still too, other things must we take objection to. The illustrations for the most part are miserable, the microscopic cuts being especially bad, as they show nothing, and are so poorly printed that in most cases there is nothing but a blur. Our second objection is to the nomenclature used here, which in some cases is obsolete and rejected, in others apparently quite new as we can find no similar names in the literature.

U. J. W.

Syphilis de la Mælle, par le professeur A. GILBERT et le docteur, G. LYON. Paris, Librairie J. B. Balliere et fils, 19 Rue Hautefeuille, 1908, all rights reserved. Les actualités Médicales. Price one franc fifty.

This little book of 97 pages on syphilis of the spinal cord, reminds one very much of the serial compends edited for students in our own language, and in fact it belongs to just such a series of works in French. It is very brief, concise, its arrangement is logical, and like most French medical works is entertainingly written. It commends itself to syphilographers simply as a handy pocket reference work, for students it may have a greater value in presenting an immense subject in barest outline, and yet withal, including the important points in the pathology, diagnosis and treatment. It presents, however, nothing new and nothing not included in the larger works on the subject, and the authors make no pretensions in this respect.

U. J. W.

Précis de Dermatologie, par J. DARIER, médecin de l'Hospital Broca, avec 122 figures dans le texte. Paris. Masson et Cie. 120 Boulevard, Saint Germain. 12 francs.

In presenting this work, Dr. Darier says it is intended for the new students in the field of dermatology, but the book exceeds its author's modest purposes, for it is undoubtedly a most valuable little treatise for all interested in the subject of skin diseases. Comprising about 700 pages, it is naturally only a short treatise, but the subject matter is all meat,—bibliography, history and discussions have been sacrificed to the essentials of diagnosis and treatment. The arrangement of the subject matter is most orderly and novel, the thirty chapters are divided into two parts; chapter one to twenty-two, embrace the eruptive dermatoses and the non-eruptive. The eruptive dermatoses are presented according to the naked eye morphology, according as they correspond to primary dermatological conditions, thus we have erythemas, purpuras, erythemato-squamous eruptions, erythrodermias, papular, vesicular and bullous eruptions, etc., etc. In the non-eruptive dermatoses, Darier has included,—dyschromies, atrophies, scleroses and dystrophies, hypertrophies, folliculoses, trichoses, onychoses, and hydroses. Under each of these main groups the sub-groups are treated in most orderly, logical fashion. The second part from chapter twenty-three to thirty, includes those conditions with a definite ætiology,—here we have treated artificial dermatoses, the neurodermatoses, those of infectious origin, and finally the tumors of the skin, the last being taken up as a group apart. From the standpoint of a publication, the book is excellent, save only in its binding and cover, which is decidedly unattractive. The printing is excellent, the paper good. The illustrations, of which there are 122, are excellent, and particularly valuable are the beautiful uncolored microscopic cuts, which are simple, though not at all diagrammatic. In short, in the "*Precis de Dermatologie*," Dr. Darier has presented a most valuable little work, an addition not only to the library of the students and practitioners, but also to that of the specialist.

U. J. W.

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PRESIDENT'S ADDRESS *

By DR. T. CASPAR GILCHRIST

Gentlemen:—The President's first duty, which is a very pleasant one, is to greet you all at this, the thirty-third annual gathering of our Association and the third held in Philadelphia, a city which has borne her share nobly in upholding all that is great in dermatology. The second duty consists in delivering an address, which I trust, will not over-tax your forbearance, and which will be limited to a brief survey of the out-look in our specialty.

In the last few years a suggestion, recommended by several of our former presidents, has been adopted with marked success. As a result the meetings of our organization are now held only in the larger cities. The presentation of individual cases before the whole society, after the patients have been examined previously by the members, has brought out well considered and well expressed opinions from the different observers concerning the diagnosis, etiology, pathology and treatment of the cases. From their wide practical experience, the older members have rendered their sometimes more conservative views, which have been followed by the more aggressive, stimulating and sometimes newer ideas of the younger men.

I wish, and I feel sure that others will agree with me, that it were feasible to have another clinical day which could be held about Christmas time, as these demonstrations have certainly proved helpful to most of us. The exhibitions of photographs, photomicrographs, colored plates and microscopic specimens is also very instructive, but since our exhibit is never large, consisting only of the work of the previous year, if each exhibitor were allotted, let us say, five minutes to demonstrate his collection, we all could receive the full benefit of these specially interesting cases and not pass by many of the exhibits with a cursory glance as is often done now.

Our specialty is now taking its proper place in the curriculum of the majority of our medical schools in the country and an organ-

* Read before the 33d Annual Meeting of the American Dermatological Association, Philadelphia, June 3-5, 1909.

ised effort, under able leadership, is being made by a committee appointed by the American Medical Association to elaborate more in detail the method of teaching dermatology. The results will, I feel sure, be productive of much good and we will hear less often the remark that the practitioner knows less about skin diseases than almost any other branch of medicine. Adequate facilities in the way of beds are being furnished by more and more hospitals, although there are many prominent institutions from whose wards skin cases are still debarred.

All of us are intensely interested in the teaching of dermatology and the conveying of our knowledge to the practitioner as well as to the student of medicine. So far as the student is concerned, and in many cases, the practitioner, they are accomplishing a great deal if they acquire a good knowledge of the commoner diseases of the skin. This observation has been made before, but it is well worth repeating. All rare cases arouse special interest and there is no difficulty in remembering all about them for a long time afterward, but to remember the most common diseases apparently requires special effort.

Students now come to us in the fourth year with a good foundation in pathology and bacteriology and bring with them a lot of new terms, which almost require a special dictionary to explain. As their teachers we are bound to keep in touch with all those fundamental principles which are being established and with the other broad advances which are being made in experimental work in medicine. Our conception of skin diseases must be viewed more and more with a microscopic eye. It is not enough to tell a student that a boil is due to infection by *staphylococcus aureus*. If by a series of questions the student is carried back to his work in the laboratory we can readily remind him that the aureus grows abundantly on certain media because there is no restraint to its growth, but that when it invades the skin there is marked opposition to its growth and this is shown by inflammation. In this way we can teach him to utilize his pathological knowledge. From now on emphasis should be laid upon the fact that when micro-organisms invade the skin there ensues not merely a simple inflammation, but a very complex fight. The skin consists of living active epidermal cells, of connective tissue cells, endothelial cells, cellular collections round the vessels, mast cells, fibrous tissue, elastic tissue and other elements, all very much alive and all distinctly objecting to the invasion and multiplication of these deleterious micro-organisms. Hence it can be readily seen what a complicated process must go on.

In some diseases there seems to exist some selective power to attract certain varieties of cells to the seat of the disease. Thus in urticaria factitia there seems to be a special attraction for polymorphonuclear leucocytes; in urticaria pigmentosa, for mast cells; in blastomycosis, for plasma cells and so on. The elucidation of these phenomena belongs, I trust, to the near future.

Another set of problems will deal with the part played by the various micro-organisms which are normally present in the intestinal tract but which, when they multiply at an abnormal rate, may become pathogenic under certain conditions, then, it is possible that the elimination of their toxic products through the sweat apparatus—which as a whole must be regarded as an eliminative organ—may give rise to many of the skin diseases of whose ætiology we now know nothing. Investigations along this line may materially assist us in the search for the now unknown ætiological factors in some of the cutaneous diseases, and when the micro-organism is identified the use of an appropriate vaccine will probably prove of great therapeutic value.

It may be of interest to refer here to a plan of teaching which has yielded good results in the last eight or nine years at the Johns Hopkins. The student is first taught how to take a history and then to describe the lesion according to a definite plan supplied to him on a printed card. He soon begins to fill out these cards by himself. Each student receives type-written notes giving a short description of each of the more common skin diseases classified regionally and also according to their primary lesions. Tables showing the main points for the differential diagnosis are also included and finally a short list of annular lesions. Thus the student soon becomes familiar with the names of the more common skin diseases and begins to make a tentative diagnosis with a fair amount of assurance. After about two or three weeks' daily training he is directed to study by himself and try to make a diagnosis of all the new cases before they are gone over by the instructor, after which he is questioned about them and has to give his reasons for his diagnosis. Whenever possible the teacher tries to utilize the fundamental knowledge of the student in pathology and bacteriology.

This constitutes the sectional teaching every day, but once a week selected cases are shown to the whole class. In this clinic the members of the class are instructed to use their notes and study the cases during the first half hour, after which they have to hand in

written diagnoses to the instructor. During the second half hour the cases are gone over by the instructor and, as might be expected, the students take more interest in his demonstrations because they have been doing their best to solve the various problems and to think for themselves. Not infrequently, a student is asked to prepare and give a five minute talk before the class on some subject of special interest, such for instance as, "Present day views upon the ætiology of cancer"; "What is the meaning of opsonins"? By this method of teaching we keep very good track of all students in the course of dermatology.

Lately our system of instruction has been somewhat altered at the Johns Hopkins. The session is divided into three equal parts—trimesters—and more time has been devoted to medicine and less to surgery. The specialities are practically elective. A whole trimester devoted to a special subject constitutes a major course for which a certain number of marks is allowed; and half a trimester constitutes a minor course. The student must gain a certain number of marks in order to make his course valid. During the past year many of the students took major courses in dermatology and a few took extra work. Such students were directed to undertake small researches which did not interfere with their regular work. Some took up experimental work on animals with psoriasis, others, the agglutination work with bacillus acnes, others made investigations on the various organisms carried about by pediculi, bugs and fleas when invading the skin. One student was asked to test all secretion from the skin lesions for their alkalinity or acidity, and one made observations on the movements of epidermal cells on the warm stage of the microscope. The interest of these workers was aroused and even such small beginnings may stimulate them to do other work.

The teaching of dermatology of to-day and for the future means much harder work than formerly, as the dermatologist must not only convey his knowledge to the student by personal practical teaching, but must also advance the knowledge of our branch of medicine by investigation and experimental work, otherwise his horizon must inevitably grow narrower.

It is a pleasure to refer to the striking advances in our knowledge of syphilis as a result of the serum-derivative tests of Wassermann and Noguchi, and from the use of the dark-field illumination for the detection of the spirochæta pallida.

Since Schaudinn first discovered this organism, only about three years ago, confirmatory evidence has accumulated so fast that the

spirochæta pallida is now accepted by practically all authorities as the cause of syphilis. During the last twelve months the dark-field illumination, by the use of which the *spirochæta pallida* is readily recognised, has demonstrated the fact, that many lesions of the genital apparatus that give no evidence of being primary sores are in reality, luetic. The moving organisms are more easily detected by this method than in stained specimens. Hence in the study of lesions about the genital apparatus the serum from them should be examined by this method as a matter of routine. Investigations have also shown the presence of *spirochætæ* in all cutaneous forms of syphilis. By some observers the Wassermann and Noguchi serum test has not been found reliable in the very early stage of syphilis, but the gap is easily filled up by the demonstration of the parasites in the primary lesion. In thousands of cases, however, the Wassermann test has been found to be of inestimable value, especially in clearing up the diagnosis for diseased organs other than the skin. This has also been our experience, although it must be admitted that we have seen untreated cases of undoubted syphilis which have yielded negative results to the test. Neisser believes, as the result of his observations with this test, that all cases of syphilis should be treated vigorously, however mild the lesions may appear to be.

Neisser's investigations of syphilis in apes rank with Schaudinn's discovery. Neisser believes that syphilis in apes can be cured by the use of atoxyl, but that the disease is rarely curable in man and that this incurability explains why re-inoculation is so rare. If an ape is re-inoculated with positive results he holds that re-inoculation has become possible because the animal has been cured of the disease and that insusceptibility to re-inoculation with syphilis shows that the animal is still suffering from the disease. Syphilographers disagree with Neisser's statement that syphilis in man is not curable, because it has been shown for many years and in thousands of cases that persons have recovered from syphilis sufficiently to have healthy children and grand-children.

On account of the curative effects of atoxyl in apes it was hoped that we had now another powerful remedy in the treatment of syphilis in human beings, but so far the drug has not borne out these great expectations. We have still to rely on mercury as the principal drug, although a combination of mercury and atoxyl has been formed and is being tried. We are greatly in need of another drug in severe forms of syphilis when neither mercury nor the iodides are well borne and atoxyl has been found to be valuable in some of these cases. What we are searching for is a drug that will have the

power of killing the spirochætæ as quinine kills the malarial parasite, but mercury apparently has not this power.

Another test of quite a different character is Von Pirquet's cutaneous tuberculin test. This has been proved to be reliable and Von Pirquet's work has received confirmation from numerous sources. Its use ought to be a great help in the proper classification of the so-called tuberculides and allied affections.

There is a very common disease of the skin, *acne vulgaris*, which is looked upon by the patient, especially if she be a woman, as a very serious affection and by the family physician, as a very slight ailment. This affection is now receiving better treatment than ever before. Sir Almroth Wright was the first to determine the efficacy of a vaccine made from the *staphylococcus albus* in severe cases of pustular acne. In the last two years I have used both the albus vaccine and one made from *bacillus acnes* in a large number of cases. Many lesions will clear up under the use of the *staphylococcus albus* vaccine alone, but these belong to cases in which the albus predominated as a secondary invader. But although, when the albus pustules disappear, the acne lesions will also temporarily clear up, the cases with small and large nodules do not improve under the albus treatment alone. Cases of pure acne where *bacillus acnes* grows in pure culture do not get better from the use of the albus vaccine, but markedly improve under the use of a vaccine made from *bacillus acnes*. A priori, therefore, the ideal treatment would appear to be obtainable with a mixture of these vaccines, as in a large number of cases both organisms are found. Experience has shown that the comedones are not influenced by the use of either vaccine, but have to be expressed in the old way. Nevertheless, the use of the vaccine seemed to prevent their return.

In my remarks on this subject at our last meeting I did not belittle proper attention to diet, the regulation of the natural functions, the use of the X-ray and local applications in the treatment of *acne vulgaris*. But experience is showing that we have in vaccines and particularly in that made from *bacillus acnes*, a valuable addition to our treatment. Two years ago I commenced with injections of 100,000,000 of killed *bacillus acnes* once a week and one patient suffering from pure nodular acne got well after only three injections, although whether any relapse took place, I do not know, because I lost sight of the patient. In other cases the dosage was increased to 200,000,000 and marked beneficial results followed. But in some patients more nodules appeared, showing that too large a dose of the vaccine was being used.

Pure cultures of *bacillus acnes* have been obtained from such artificially produced nodules by Fuller.

For the albus vaccine from 300 to 500 millions every seven or ten days appeared to be the proper dose. The effect in many cases is noted in twenty-four hours. In mild cases of superficial small pustular acne rapid results were very definite and sometimes no other treatment appeared to be necessary.

The ætiological relationship between *bacillus acnes* and *acne vulgaris* is now being confirmed by other investigators. The fact that the bacillus is usually present in large numbers in the skin does not weaken the probability of a causal relationship. An analogy is shown in the case of the tubercle bacillus and many other micro-organisms which are normally present in the human body, but which become pathogenic and produce disease only under certain conditions. *Staphylococcus albus* is also normally present on the skin, but can at times become pathogenic. We have found that *bacillus acnes* grows well on two per cent. glycerine agar made slightly acid with acetic acid according to a formula which I have given before.

In infections from *staphylococcus aureus* especially in connection with *sycosis non-parasitica* our cases did not improve under autogenous vaccine, but much better and practically curative results were obtained from the use of a *staphylococcus albus* vaccine. We have had a similar experience at times with *furunculosis* due to *staphylococcus aureus*.

In treating *acne vulgaris* with the albus vaccine, I noticed on two occasions that certain concomitant eczematous patches disappeared under this treatment. This fact directed my attention to the additional treatment of eczema with vaccines especially in the pustular and weeping varieties. Some years ago I showed that we could obtain a pure culture of *staphylococcus aureus* from cases of weeping eczema, and of course, in the pustular forms, *staphylococcus albus* is frequently found; hence one would naturally assume that the vaccine treatment would help. Its efficacy was tested by treating patients in the usual way and then, if the cases did not respond rapidly, the vaccine was used with an initial dose of 300,000,000, the effect being noted the next day, or two days later, while the patient was still continuing the other forms of treatment. In quite a number of cases the beneficial results were rapid and quite marked and consequently this mode of treatment appears to be worthy of a further trial.

I have also used the albus vaccine in severe relapsing bullous erythema multiforme, since it had occurred to me that the skin lesions might be due to the elimination of toxins derived from the growth of staphylococcus albus in the intestinal canal. No organisms were obtained from cultures from the vesicles or bullæ and none could be seen by the dark-field illumination method. The use of the vaccine in severe cases resulted, however, in very marked improvement and final cure. Both patients had had eight or nine previous attacks so that it was evident that the ordinary treatment had not prevented relapses.

In patients suffering from severe luetic ulcerations which did not heal up readily under mercurial treatment, the use of the albus vaccine has proved very beneficial.

I have also been using the same kind of vaccine experimentally in the treatment of other diseases, as for instance, in psoriasis, but with doubtful results; in lupus erythematosus (three cases) with apparently slight beneficial results; in acne rosacea with markedly good results in some cases (two patients have noted a great decrease in the redness in twenty-four hours); in dysidrosis with variable results, except in one patient in whom the disease was severe, the good effect was very pronounced; in furunculosis very good results were obtained.

From personal experience and from what I have seen it has occurred to me that by using vaccines made from organisms in a state of quiescence we might get even better results. As yet we do not know much about the use of repeated small doses of vaccine. In fact, the use of vaccines is still in the experimental stage.

The opsonic index does not appear to be of much practical use, and we have to depend upon clinical signs while administering the vaccine. This course was followed by Trudeau when giving tuberculin to his patients. In Trudeau's hands tuberculin proved very disappointing at first until he began with very minute doses which were gradually increased, the patients meanwhile being carefully watched.

Another broad field for research lies open in the careful study of comparative dermatology. Sabouraud has done good work on ringworm in domestic animals and in this field can probably be found a solution of many intricate problems with which the dermatologist is still confronted.

Concerning the use of the X-ray in cutaneous diseases not much

that is new can be added; it still remains an extremely valuable therapeutic adjunct in our speciality.

The use of radium is again coming to the fore. The results obtained by Wickham and the observations of Treves seem to show that radium produces markedly good effects especially on vascular *nævi*, rodent ulcers and small commencing epitheliomata. It is particularly effective in growths that are inaccessible to the X-rays. I have found it very valuable in suitable cases.

A new method of treatment—ionization—has proved successful, especially in some cases of lupus erythematosus. I have seen practically curative effects in one case and in two others I have obtained very beneficial results. This treatment is well worth a trial in this disfiguring disease of the skin.

The experience of numerous members of this Association has confirmed the original observations of one of our distinguished members, Dr. Pusey, on the use of carbonic acid snow in the treatment of various skin diseases.

The epidemic of pellagra in some of the Southern States should receive more attention from the dermatologists of that part of the country, as it offers a good field for investigation into the *ætiology* of that disease.

In bringing my remarks to a conclusion, I would say, that if I have advanced any idea or suggestion which may prove of service in our practical or teaching work, I shall feel myself amply repaid.

A COMPARISON OF THE WASSERMANN AND NOGUCHI COMPLEMENT FIXATION TESTS *

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BEFORE analyzing the practical results obtained by a comparison of the Wassermann¹ and Noguchi² tests it seems advisable to discuss the advantages and disadvantages of the methods from a theoretical standpoint. At the outset it may be said that the present communication is solely concerned with the complement-fixation test recently described by Noguchi and not with the serum diagnosis test of the same author depending upon the precipitation of globulin by butyric acid.³

Up to the present time four methods for the serum diagnosis of syphilis, depending upon the principle of complement-fixation have been devised, which may be said to be independent "systems." In addition there are three other methods also depending on the same principle (complement-fixation), which are merely attempts at simplification of the original Wassermann test.

The first two systems to be published were those of Wassermann and of Detre,⁴ that of Detre appearing only two weeks after the now classic communication of Wassermann, Neisser and Bruck. As the publication of the two methods was practically simultaneous and entirely independent, it seems unjust that at least some share of credit should not have fallen to Detre. The latter's method seems to be at least theoretically the equal of Wassermann's.

The chief weakness in the method of Wassermann is due to the fact that there is amboceptor for sheep's corpuscles naturally present in human blood. This may be present in such excess (as Noguchi has shown) as to give a negative reaction where a positive one should be given. An analogous objection can be made to the method of Detre in which horse's corpuscles and anti-horse amboceptor are used. It has been found by Aschenheim⁵ that there is normally present in human blood a certain amount of amboceptor for horse's corpuscles. A further objection of minor importance to

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Detre's method is that rabbit's serum, which he uses for complement, is somewhat less sensitive to fixation than guinea pig serum.

Of the three modifications of the regular Wassermann reaction, that of Bauer⁶ has received the greatest amount of attention. This method dispenses with the immune anti-sheep amboceptor and depends alone upon the anti-sheep amboceptor that is naturally present in human blood. As this is a variable quantity and at times insufficient in amount to cause complete hæmolysis, the method is on this account objectionable.

The modifications of Hecht⁷ and of Stern⁸ utilize the complement normally present in fresh human serum. Against the methods such as these which use human, instead of guinea pig complement, the following objections can be made: Human complement is less sensitive to fixation and more variable in amount than guinea pig complement and its use requires that the test be made with a fresh specimen of blood, as complement rapidly deteriorates. Again there is no direct way of testing the anti-complementary action of the antigen, when human complement is used, that is, it cannot be directly told whether the inhibition of hæmolysis is due to the antigen alone or to the antigen combined with the antibody. Finally as there is no complement in the spinal fluid this substance cannot be used for the methods depending upon the presence of human complement. The modification of Hecht uses not only human complement, but natural amboceptor as well. It is, therefore, not only open to the objections urged against the use of human complement, but also to the objections to natural amboceptor discussed above in connection with Bauer's modification.

Recently two systems have been devised independently by Tschernogubow⁹ and by Noguchi, both of which employ human corpuscles and anti-human amboceptor. In his effort to obtain the greatest possible simplicity, Tschernogubow used a single drop of blood which was depended upon to supply corpuscles, antibody and complement. The test is open to the objections mentioned above for using human complement. Furthermore, the amount of complement present in a drop of blood is too small according to the experiments of Noguchi¹⁰ to hæmolyse a weak suspension of human corpuscles in the presence of two units of amboceptor. Tschernogubow's method cannot be used for testing old specimens, not merely because he uses human complement (which deteriorates rapidly), but also because the human corpuscles deteriorate after a few days.

That the method of Tschernogubow is as faulty in practice as it is objectionable in theory would appear from a recent communication of the author of the test. He practically repudiates his method by proceeding to describe an entirely new one which he calls merely a "change" in his old method. Tschernogubow¹¹ in his new test uses guinea pig corpuscles as the indicator and apparently uses human complement and natural anti-guinea pig amboceptor though this is not stated. While it is quite possible that this second method will work out in practice it is certainly not a very great step forward and by no means free from theoretical objections.

The two principal objections to the above described methods, namely the presence of natural anti-sheep amboceptor in human blood, and the substitution of human for guinea pig complement do not apply to the recently perfected system of Noguchi. A possible theoretical objection to Noguchi's method might be made, that as the serum is used in an active state the test is thereby rendered too delicate and too liable to give positive reactions where negative ones should be given. Boas,¹² in a recent communication, has compared the effects of using active and inactive serum in non-syphilitic affections. His results show that by using active serum more positive reactions were obtained in non-syphilitic cases than had previously been supposed to be possible. Boas concludes that it is not practicable to use active serum. He considers that it is necessary by means of inactivation, to weaken the syphilitic antibodies, in order to effect a narrower zone of reaction. It is also necessary to destroy natural complement which in some cases is present in large amount. The objection of using active serum cannot be held against the system of Noguchi as in his method it is possible to use either serum that is active (fresh), or inactive (without complement) or inactivated (heated to 56° C.). This cannot be said of any of the other systems described. If, however, inactivated serum is used in the Noguchi test it is necessary according to Noguchi (personal communication) to employ four to five times the usual amount of serum, *e. g.*, four or five capillary drops instead of one. With regard to the disturbing influence of human complement in the Noguchi test it may be said that the amount of complement (human) in one capillary drop of serum is so small that its effect can be disregarded. The question of using active serum in the Noguchi test can, after all, only be decided by the practical results of the test, a subject which will be later discussed.

The technique employed by the writer in his comparative analy-

sis was practically that originally recommended by Wassermann and by Noguchi for their respective methods. In the case of the Wassermann test several substances were used as antigen. For some of the earlier tests a 0.1 per cent. suspension of crude lecithin (as prepared and titrated by Noguchi) was used. For a few tests an extract of dog liver kindly supplied by Dr. H. F. Swift served as an excellent antigen. In the majority of the cases, extracts of liver of syphilitic infants were used, their preparation being as follows: To the liver substance previously ground in a mortar, alcohol was added in the proportion of one part of liver substance to ten of alcohol. The mixture was allowed to stand ten days at room temperature, being shaken from time to time. The clear fluid was then evaporated to one-third its volume and used for the test in dilution with normal salt solution in the proportion of four parts of salt solution to one of extract. The other substances used were two cubic centimeters of inactivated patient's serum, one-tenth cubic centimeter of guinea pig complement, two units of anti-sheep amboceptor, prepared from rabbits and one cubic centimeter of a five per cent. suspension of washed sheep's corpuscles, the entire mixture consisting finally of five cubic centimeters of fluid. The tubes were incubated in a water bath at 37° Centigrade and the results read at the end of two hours.

The technique of the Noguchi test was that originally described by Noguchi and by the writer¹³ in a former communication. For complement 0.04 cubic centimeter of fresh guinea pig serum was employed instead of the papers impregnated with this substance. The suspension of corpuscles was made by mixing one drop of normal blood in four cubic centimeters of normal salt solution, while the antigen and amboceptor were used in the form of small papers kindly supplied by Dr. Noguchi. The tubes were incubated for two hours, after which the final results were read.

As the suspension of corpuscles shows at times anti-hæmolytic properties, Dr. Noguchi has recently advised that the corpuscles be washed free of the disturbing anti-hæmolytic substances. This is most conveniently done by allowing the corpuscles to settle to the bottom of the flask, after which the salt solution is pipetted or poured off and fresh salt solution added.

In an attempt to judge of the merits of the Wassermann and Noguchi tests from a practical standpoint, the writer has made a comparison of the two methods in 210 cases. Of this number twenty-three were non-syphilitic control cases, while the remainder were

TABLE I
CASES OF SYPHILIS WITH MANIFEST LESIONS.

<i>Case No.</i>	<i>* Stage</i>	<i>Type</i>	<i>Time since infection</i>	<i>Treatment</i>	<i>Wassermann</i>	<i>Noguchi</i>
1	II	Papular	4 months	3 weeks internal	+	+
2	II	Papular	Probably 1 year	3 weeks internal	+	+
3	III	Gummatous	Probably 5 years	4 months internal	-+	+
4	III	Leucoplakia	15 years	6 weeks inunctions, 1 year internal	-	+
5	III	Tubercular	Probably 15 years	1 month internal	-	+
6	II	Macular	Few months	None	-	+
7	III	Gummatous	7½ years	2 years inunctions and internal	+	+
8	II	Papular	4 months	None	++	++
9	II	Papulo-squamous	3 months	2 months internal	-+	++
10	III	Tuberculo-gummatous	Unknown	4 months internal	++	++
11	III	Gummatous	23 years	20 months internal	+	+
12	III	Gummatous	Unknown	None	-	+
13	II	Papular	3 months	None	++	++
14	III	Gummatous	4 years	1 year internal	+	+
15	II	Maculo-papular	Few months	None	++	++
16	II	Maculo-papular	1 month	2 weeks internal	++	++
17	III	Tuberculo-ulcerative	3 years	9 months	+	+
18	II	Macular	2 months	None	++	++
19	III	Ulcerative and gum- matous	Unknown	4 years internal Most of time under internal treatment	-+	++
20	III	Leucoplakia	9 years	None	-+	-
21	II	Papulo-squamous	Unknown	None	++	++
22	III	Gummatous	Unknown	10 days medicine	-+	+
23	III	Tubercular	7 years	90 injections	-	-+
24	III	Tubercular	6 years	"Always under treat- ment," internal	-+	+
25	II	Papulo-pustular	7 months	None	++	+
26	III	Tuberculo-ulcerative	Unknown	None	-	-+
27	II	Macular	6 weeks	None	+	+
28	II	General adenitis	9 weeks	5 injections	++	++
29	III	Gummatous	14 years	Large amount in- ternal	-+	-
30	II	Papulo-squamous	4 months	3 months internal	+	++
31	III	Tuberculo-squamous	Unknown	None	-+	+
32	II	Macular	9 weeks	1 week internal	++	++
33	II	Macular	2½ months	1 week internal	++	++
34	II	Mucous patches	3 months	2 months internal	++	+
35	II	Papular	5 weeks	10 days internal	++	++
36	I	Chancre	11 days	None	+	+
37	II	Papular-corymbiform	1 year	4 months internal	+	+
38	II	Papular	2 months	2 weeks internal	++	++

<i>Case No.</i>	<i>* Stage</i>	<i>Type</i>	<i>Time since infection</i>	<i>Treatment</i>	<i>Wassermann</i>	<i>Noguchi</i>
39	II	Papular	3½ months	None	++	++
40	III	Tubercular	6 years	1½ years internal	—+	+
41	II	General adenopathy (recent roseola)	2 months	None	++	++
42	II	Mucous patches	3½ months	27 injections	+	+
43	III	Leucoplakia	3 years	None	—+	+
44	III	Tubercular	Unknown	None	—+	—+
45	—	Hereditary	—	None	—+	—+
46	III	Tubercular	18 years	2 months internal	+	+
47	II	Macular	3 months	None	+	+
48	II	Papular	9 months	20 injections	+	+
49	III	Choroiditis	8 years	Large amount of injections and inunctions	—	—
50	II	Maculo-papular	2 months	None	++	++
51	III	Tubercular	Unknown	3 years internal	++	++
52	I	Chancre of lip		None	+	—+
53	II	Macular	6 months	Internal since beginning	+	+
54	II	General adenopathy	3 months	8 injections	++	++
55	III	Tubercular	6 years	3 years internal	+	++
56	II	Maculo-papular	Few months	None	+	++
57	III	Tubercular	Unknown	None	+	++
58	II	Macular	Few months	None	++	++
59	III	Tubercular	6 years	1½ years internal	+	++
60	II	Papular	Few months	None	++	++
61	II	Pustulo-crustaceous	Unknown	None	++	++
62	III	Tubercular	17 years	3 years internal	+	+
63	III	Tubercular	Unknown	None	—	—
64	III	Tubercular	3 years	2½ years	—	—+
65	III	Tubercular	Probably 6 years	6 months, injections and internal	++	++
66	II	Macular	2 months	None	++	++
67	I	Chancre	1 month	None	+	+
68	II	Pustular	5 months	None	++	—+
69	I	Chancre	1 month	None	+	+
70	III	Tubercular	13 years	2 months internal	++	++
71	I	Chancre tonsil	2 months	None	++	++
72	III	Leucoplakia	35 years	7 months internal	—	—
73	II	Macular	Recent	None	+	+
74	II	Macular	3 months	None	++	++
75	I	Chancre of penis	1 month	None	+	++
76	I	Chancre of penis	2 months	None	+	+
77	II	Papulo-squamous	2½ months	None	+	+

*I—Primary.

II—Secondary.

III—Tertiary.

TABLE II
CASES OF SYPHILIS SHOWING NO MANIFESTATIONS.

<i>Case No.</i>	<i>Time since infection</i>	<i>Treatment</i>	<i>Wassermann</i>	<i>Noguchi</i>
1	Unknown	1 year internal	—	—+
2	Probably 18 months	4 months internal	—	—+
3	18 months	1 year	++	++
4	10 years	2 years internal	—	+
5	2 to 4 years	10 injections and internal for 2 years	—	—
6	6 months	5 months internal	++	++
7	9 years	About 3 years internal	—+	—+
8	16 years	6 years internal. Injections at present	—	—+
9	3 years	3 years internal	—	+
10	Probably 2½ years	2 years internal	—	—+
11	Probably 2½ years	2 years internal	—	—
12	9 weeks	2 weeks internal	++	++
13	4 years	3 years	+	+
14	12 years	3 years internal and injections	—	++
15	10 years	Large amount internal	—	+
16	18 years	6 months internal	—	—
17	2 years	2 years	—	—
18	4½ years	4 years internal, 4 months injections	—	—
19	20 months	20 months internal	—	—
20	4 months	12 injections	+	+
21	2 years	2 years internal	+	+
22	1 year	1 year internal	—	—
23	15 years	About 6 months internal	—+	—
24	14 months	14 months internal	—+	+
25	15 months	6 weeks internal and inunctions	—+	+
26	10 years	About 1 year internal	—	—+
27	9 years	2 years internal	—	—
28	Unknown		+	+
29	6 years	2½ years internal. Occasional inunctions	—	—+
30	25 years	None	—	—
31	9 months	50 inunctions, 15 injections	—+	+
32	3½ years	3½ years internal	+	+
33	Probably 1½ years	1 year internal	++	++
34	Unknown		+	+
35	4 years	4 years inunctions and injections	+	—+
36	13 years	About 4 years internal. Few inunctions	—	+
37	20 years	2 years internal	—	—
38	3½ years	Irregular 3 years internal	+	—+
39	2 years	2 years injections	+	+
40	10 years	6 months internal	—	—
41	2 years	2 years internal	++	++
42	3 years	1 year injection, 2 years internal	—+	+
43	8 years	3 series of inunctions	—+	+
44	8 years	3 years internal	—+	—
45	5 years	9 months internal	—	—

<i>Case No.</i>	<i>Time since infection</i>	<i>Treatment</i>	<i>Wassermann</i>	<i>Noguchi</i>
46	2½ years	2½ years internal	—	—
47	3 years	3 years internal	+	+
48	10 years	None	+	+
49	2½ years	18 months internal	—	—
50	10 years	3 years internal	—	—
51	15 years	4 years inunctions and internal	—	—
52	18 years	18 months internal	—	—
53	4 years	200 injections	—	—
54	14 years	Large amount of inunctions and injections	—	—

TABLE III
CASES FOR DIAGNOSIS.

<i>Case No.</i>	<i>Disease</i>	<i>Wassermann</i>	<i>Noguchi</i>	<i>Remarks</i>
1	Scabies—possible recent syphilis	++	++	Case could not be followed.
2	Traumatic vs. syphilitic ulcer of lip	—	—	No history of syphilis. Patient has bad teeth.
3	Chancre vs. chancroid	—	—	Butyric acid test negative.
4	Drug rash vs. macular syphilide	++	++	Proved later to be syphilitic.
5	Lateral sclerosis. Gummata?	—	—	Improved under potassium iodide.
6	Scabies vs. syphilis	—	—	Proved to be non-syphilitic.
7	Epithelioma vs. syphilis of glans penis	—	—	Proved to be epithelioma under microscope
8	Endarteritis with symptoms of Raynaud's disease	—	—	Case well treated.
9	Gumma of tonsil	+	+	Great improvement under potassium iodide.
10	History of miscarriages	—	—	
11	Epithelioma vs. syphilis of tongue	—	—	Probably epithelioma.
12	Chancre vs. chancroid	+	+	
13	Lupus erythematosus vs. syphilis	+	++	Probably both diseases present.
14	Syphilophobia	—	—	
15	Rhinitis syphilitica?	—	—	History indefinite.
16	Fibromata vs. gummata	—	++	Cured by anti-syphilitic treatment.
17	History of recent condylomata	++	+	

<i>Case No.</i>	<i>Disease</i>	<i>Wassermann</i>	<i>Noguchi</i>	<i>Remarks</i>
18	Chancre (?) of clitoris	—	—	Proved to be non-syphilitic.
19	Seborrhœic dermatitis vs. tubercular syphilide	+	+	Cured by anti-syphilitic treatment.
20	Eczema vs. syphilis of palm	—	—	Proved to be eczema.
21	Tuberculous vs. syphilitic ulceration of palate	++	++	Improving under anti-syphilitic treatment.
22	History of miscarriages	—	—	
23	Possible syphilis of tubes and ovaries	+	+	
24	Scrofuloderma vs. hereditary syphilis	++	++	Rapid cure under anti-syphilitic treatment.
25	Eczematous vs. syphilitic ulcer of leg	—+	+	Case not followed.
26	Rosacea vs. tubercular syphilide of nose	—+	—+	Positive history syphilis. Improvement only under treatment for rosacea.
27	Leucoplakia—possible previous syphilis	—	—	
28	Ulceration of tonsil	—	+	
29	Syphilophobia	—	—	
30	Gonorrhœa plus suspected chancre	++	++	Later proved to be syphilis.
31	Onychia	—	—	No history of syphilis.
32	Tuberculous vs. syphilitic ulceration of throat	+	+	
33	Dactylitis?	—	—	Probably a synovitis of nervous origin.
34	Ulceration of throat	—+	—+	
35	Recent suspicious sore of penis	—	—	No symptoms of syphilis.
36	Rosacea vs. tubercular syphilide	—	—+	Case not followed.
37	Lupus erythematosus vs. tubercular syphilide	—	—	Proved to be lupus.
38	Syphilophobia	—	—	
39	Fibromata vs. gummata	—	—	No history of syphilis.
40	Tuberculide vs. syphilide	—	—	No history of syphilis.
41	Atrophy of nails. Hereditary syphilis?	—	—	
42	Eczema. Hereditary syphilis?	—+	+	Sister of case 4. Daughter of case 48 (Table I.)
43	Inguinal adenitis. Ulceration of throat	—	—	Later proved to be non-syphilitic.
44	Ulceration of epiglottis	+	+	Possible chancre 15 years previously.

<i>Case No.</i>	<i>Disease</i>	<i>Wassermann</i>	<i>Noguchi</i>	<i>Remarks</i>
45	Chancre vs. chancroid	—	—	Proved to be non-syphilitic.
46	Urethral chancre?	—	+	Later both tests gave strong positive reactions.
47	Carcinoma vs. tuberculosis vs. syphilis of rectum	—	—	Syphilis later excluded.
48	History recent sore of penis	—	—	No further signs of syphilis.
49	History recent sore of penis	—	—	No further signs of syphilis.
50	Induration of glans penis	—+	—+	
51	Phagedænic ulcer vs. gumma of glans penis	—+	—+	Too recent for further report.
52	Retrobulbar neuritis. Possible tabes	--	—	Doubtful history of syphilis. Tabes excluded later.
53	Syphilophobia	—	—	

TABLE IV
SUMMARY OF STATISTICS.

<i>Disease</i>	<i>Total Number of Cases</i>	<i>Wassermann tests</i>		<i>Noguchi tests</i>	
		<i>Positive reactions</i>	<i>Percentage</i>	<i>Positive reactions</i>	<i>Percentage</i>
Primary	7	7	100%	7	100%
Secondary	37	36	97%	37	100%
Tertiary	32	23	71%	27	84%
Hereditary	1	1	—	1	—
Tabes dorsalis	3	3	100%	3	100%
Latent cases	54	25	46%	34	62%
Cases for diagnosis	53	21	39%	26	49%
Non-syphilitic cases	23	2	—	4	—

cases of manifest and latent syphilis in its different stages and cases in which the diagnosis was in doubt.

A detailed comparison of the results of the two methods in individual cases is given in Tables 1, 2 and 3. A positive reaction is represented by a single plus sign, while two plus signs signify a strong reaction or practically complete inhibition of hæmolysis. A weak positive reaction is represented by minus plus and a negative by a minus sign. From these tables and from the summary in Table 4, it will be seen that a higher percentage of positive reactions is given by the Noguchi than by the Wassermann tests. It may, however, be said that as the writer's experience has increased, the

number of positive reactions obtained from the regular Wassermann tests have increased and at present the results from the two methods are more nearly parallel than at first.

Of the 77 cases (Table I) with manifest lesions of syphilis, 67 or 87% gave positive reactions with the Wassermann and 72 or 93% gave positive reactions with the Noguchi test. Of the 77 cases, 37 belonged to the early period, most of them to the first few months of the disease. All of these were positive with the Noguchi and all except one were positive with the Wassermann test. In this case, one of septic metritis and syphilis combined, it was impossible to obtain a second specimen of blood for examination. Of the 32 cases classed as tertiary 23 or 71% gave positive Wassermann and 27 or 84% positive Noguchi reactions.

Seven cases of primary syphilis were examined in which the diagnosis was fairly positive from a clinical standpoint. In one case (a chancre of the lip), the lesion had existed only eleven days. In most of the cases, however, the lesions were of several weeks' duration. One patient presented a well marked lesion of the tonsil that had existed two months and that showed very typical glandular enlargement. All of these cases gave positive reactions, in four cases the diagnosis being confirmed by positive spirochæta findings with the dark field illuminator. In addition nine patients were examined in which the diagnosis of chancre was doubtful. Of these cases four gave a positive reaction and five a negative reaction with both tests. Of the four cases which gave a positive reaction, three proved later to be undoubtedly syphilitic. The fourth case was not able to be followed. The five cases which gave a negative reaction remained untreated, and did not present later any manifestations of syphilis.

That the Wassermann reaction can at times compete with the examination for spirochætæ, is well illustrated by one of the doubtful cases of chancre which gave a positive reaction. In this case the patient had suffered from gonorrhœa for about three weeks when a suspicious induration was felt beneath a very tight foreskin. The lymphatic vessels of the penis were enlarged and hard and there was a moderate inguinal adenitis of specific type. The examination for spirochætæ was practically impossible owing to the phimosis, and the Wassermann test which was made cleared up the diagnosis by giving a very strong positive reaction.

Of the 54 cases of syphilis showing no manifestations (Table

II), 25 or 46% gave positive reactions with the Wassermann test and 34 or 62% positive reactions with the Noguchi test.

Of the 53 cases for diagnosis (Table III), 21 or 39% gave positive Wassermann and 26 or 49% positive Noguchi reactions. In the majority of these doubtful cases the results were conclusive and in some cases of considerable interest. It may be of interest to cite the case of a child from the Skin and Cancer Hospital in which the diagnosis lay between an extensive scrofuloderma and hereditary syphilis. The case was seen by a dozen or more of the assistants, half of them firmly holding to one and half to the other diagnosis. The test gave a very strong positive reaction and the diagnosis of syphilis was confirmed by the rapid disappearance of the lesions under inunctions of blue ointment. Owing to an error in diagnosis, the child before admission to the hospital, had worn a plaster jacket four years for a supposed tubercular affection which did not exist.

The limitations of the Wassermann reaction, in that a positive test merely indicates the presence of syphilis and does not prove that a certain lesion is syphilitic, are well illustrated by the following case. The diagnosis in this case lay between lupus erythematosus and syphilis, with the clinical evidence strongly in favor of the former affection. As a positive reaction was obtained the patient was put upon antisyphilitic treatment. The failure, however, of treatment and the results of a biopsy showed the lesion to be conclusively lupus erythematosus. Upon questioning the patient closely, a history of a number of miscarriages was obtained, making it probable that at the time of examination she was suffering from both lupus erythematosus and syphilis. Space will not allow a further discussion of the doubtful cases, some of which have already been described in a previous communication of the writer's.

Of the twenty-three non-syphilitic cases examined, two gave weak positive reactions with the Wassermann and Noguchi tests. These were cases of leprosy which according to the reports of Meier,¹⁴ Jundell, Almkvist and Sandman,¹⁵ Slatineano and Danieopol¹⁶ and others, give positive reactions in a large proportion of cases, especially in the tubercular form of the disease. One of the non-syphilitic cases presenting aphthous ulcers and giving a history of their recurrence for many years, showed a moderately positive reaction with the Noguchi test, though a negative reaction with the Wassermann test. No history whatever or signs of syphilis

could be ascertained. A second examination was unfortunately not made. Finally in a single case of eczema in a young unmarried Jewess of nineteen, a negative Wassermann reaction was obtained, while the Noguchi method gave a most marked positive reaction. In this case the serum was tested by Dr. Noguchi himself. It seemed possible to rule out a previous syphilitic infection as far as this can indeed ever be done. To the great regret of the writer it has not been as yet possible to obtain a second specimen of blood for examination. As a result of finding a positive reaction in the writer's case of eczema, Noguchi personally examined with his test the sera of thirty other cases of eczema and obtained uniformly negative results in all.

Before concluding the writer wishes to express his sincere thanks to Dr. Hideyo Noguchi for his kindness in supplying the papers for his test and for many valuable suggestions. For material from the Vanderbilt Clinic and from the Skin and Cancer Hospital, the writer is indebted to Dr. George T. Jackson and to his father, Dr. George Henry Fox. For the cases of primary syphilis, thanks are due Dr. G. K. Swinburne and Dr. J. B. Clark.

CONCLUSIONS:

First.—Of the different methods of serum diagnosis of syphilis, depending upon the principle of complement-fixation, that of Noguchi seems most perfect from a theoretical standpoint.

Second.—From the standpoint of simplicity in technique, the method of Noguchi stands without a rival.

Third.—The result of the writer's comparative analysis of the Wassermann and Noguchi tests, shows in cases of syphilis, a larger proportion of positive reactions with the Noguchi than with the Wassermann test. It is only fair, however, to say that at present the two methods give fairly parallel results in the writer's hands.

Fourth.—Whether the Noguchi test will prove to be as nearly specific for syphilis as the original Wassermann method, can only be ascertained after an examination in the future of a large number of cases.

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SOCIETY TRANSACTIONS.

NEW YORK ACADEMY OF MEDICINE, SECTION ON DERMATOLOGY

Stated meeting held February 2, 1909.

DR. SIGMUND POLLITZER in the Chair.

Pemphigus Vulgaris. Presented by DR. LAPOWSKI.

The patient is a woman about seventy years old. The present attack started on the wrists seven months ago, without any premonitory symptoms, and during the past four months bullæ spread over the whole trunk, lower and upper extremities and the scalp. The mucous membranes are free. At times there has been slight itching which can be easily relieved by mild lotions. There is a slight amount of sugar in the urine.

Bullous Eruption. Presented by DR. LAPOWSKI.

The patient is a boy two years old. He was vaccinated when eight months old. Up to fourteen weeks ago his condition was normal, when he began to develop the present skin eruption. The general condition of the boy has been and is very satisfactory. The eruption starts as a pin-head sized clear vesicle, which seems to spring out of the healthy skin. A few hours later, a thin red border will appear around some of the vesicles, more vesicles will spring out and the skin will get red and inflamed in a patch, the vesicles being mostly localised on the borders, spreading from the center. In some places the vesicles are scattered over the whole patch. Gradually the vesicles will increase to pea-sized, sometimes to penny-sized bullæ, the contents turning turbid. The bullæ either break, the exuding contents drying up into a brown, dark yellowish crust, or the bullæ will open, leaving a reddish, wet floor with the walls flattened. Besides bullæ there are other lesions in the form of a superficial pyoderma scattered over the body. After the bulla is healed a reddish discoloration remains, disappearing after a few days, without leaving any macroscopical sign on the skin. The eruption is arranged mostly in the form of round patches and full circles spreading from a center, on the wrists, dorsal aspect of hands, both cheeks, scrotum, penis, buttocks, thighs, feet—the sacral region always remaining free. There is only slight itching. The mucous membranes are free. The case has been under my observation for the last four weeks and the eruption has been only slightly affected by the local application of tar, sulphur and mercury. The case is presented for diagnosis.

DR. COCKS said that he believed this to be a case of dermatitis herpetiformis.

DR. POLLITZER suggested a diagnosis of impetigo contagiosa bullosa.

DR. ROBINSON regarded the eruption as toxic dermatitis, probably a drug dermatitis. If that is not the cause then he could not make a diagnosis.

DR. LAPOWSKI said that this could not be a case of erythema multiforme bullosum, because the eruption was not multiform, and the bullæ appear on the sound skin, without any preceding erythema. It was not impetigo contagiosa bullosa, for the patient was not a new-born infant, but a child of two years, and also there was no cases of impetigo among the child's companions. He considered dermatitis herpetiformis a very plausible explanation, but that it could not be proven at this early stage.

Intense Erythemato-Vesicular Eruption from Quinine. Presented for

DR. T. G. LUSK by DR. WISE.

The patient is a man, aged thirty-five, in good general health and with no history of previous skin disease. He came to my clinic on January 25, and gave the following history. On Thursday, January 21, he contracted a cold and on his wife's advice took two doses of two tablets each of a "cold cure," said to contain quinine, bromine, camphor and calomel and representing one grain of quinine to each tablet. His skin was red and itchy the following day, and on Saturday, two days after taking the tablets, there was an intensely painful and extensive rash. On Monday, four days after taking the tablets, he was seen by me and at that time presented the following: arms and fore-arms much swollen and covered with minute vesicles; patches more or less discrete and varying in size from one to six inches across. Over shoulders and trunk the skin was œdematous, erythematous, raised, and covered with miliary vesicles. The sensation of burning and itching was intense. A mixture containing diaphoretic, laxative and diuretic drugs was given. The eruption rapidly faded and at time of presenting before the Section shows little more than slight discoloration where lesions had been present.

DR. DILLINGHAM said that he had an even more extensive case, as a result of only one grain of quinine.

DR. POLLITZER called attention to the exceedingly small amount of quinine required to produce an eruption in a sensitive subject, and said that he had heard of a man in whom the rash was caused by the very minute quantity of quinine contained in the summer beverage "calisaya" soda water.

Angioma Serpiginosum. Presented by DR. WALLHAUSER.

Mrs. B. aged twenty-five. Married; had one child. Is in good health. In her previous history there is nothing excepting a slight attack of rheumatism at the age of twelve. About six months ago a small red spot was noticed on the inner side of the left leg just below the knee. According to the patient's statement it looked like what would be caused by an injury and, although she was not conscious of having had a traumatism, she ascribed it to this cause. Instead of disappearing, it gradually extended and new lesions appeared on various parts of the thighs

and legs. At present about ten can be seen, in size varying from a small papule to several inches in circumference. At the original site two have coalesced forming a patch measuring about three inches in its long axis. As the lesions enlarge the centres clear without apparent scarring. In the original patch there are two of these clearing rings, marking the site of the two separate lesions from which the larger one was formed. The lesions consist of minute angiomatous points with slight intervening œdema. The surface is roughened but not scaly nor perceptibly raised; the color is purplish red and does not disappear on pressure. Extension occurs by the development of outlying foci of vascular points. In the early stages they are circular or oval in outline, gradually becoming irregular as they advance. The treatment thus far, with the various antiseptics, has not caused the slightest change.

DR. LAPOWSKI said that some of the small lesions, and parts of some of the larger ones, corresponded very closely with the case presented by him two months ago as angioma occurring in a patient with Graves' Disease.

DR. WALLHAUSER said that as no form of treatment had been successful in previous cases reported, he would try the effect of carbon dioxide snow, but before doing so would make a biopsy.

Lingua Geographica. Presented by DR. HOWARD FOX.

The patient is a girl six years old. Since infancy she has presented from time to time, patches upon the dorsum of the tongue. The patches change in size and appearance and last on an average about three weeks. She presents several superficial, sharply defined patches with reddish centres and gray yellowish border.

DR. CLARK said he knew a family in which this condition occurred in four successive generations, and in which in each case the lesions changed to leucoplakia when the patient was about twenty-one years of age.

DR. ROBINSON said he had seen a very large number of cases of this condition in children, but had never seen it followed by leucoplakia.

DR. POLLITZER said that this condition was not at all rare in children, though it had been recognized only for about twenty-five or thirty years, and had been carefully studied for only about ten or fifteen years. It seems to terminate spontaneously, for it is very seldom observed in adults. A termination in leucoplakia he believed to be very rare.

Scleroderma. Presented by DR. HOWARD FOX.

The patient is a girl, four years of age, born in the United States. The family history is negative. She had measles and bronchitis as an infant. For the first three summers she suffered from an itching eruption of the face and the extensor surface of the hands and legs. The first of the present lesions was noticed six months ago on the thigh. This gradually extended down to the foot. Lesions on the chest appeared several months later. The eruption consists of typical patches of localized scleroderma in patches and bands. There are two small

patches over the chest, one about the size of a quarter and one several times as large. There is a small patch over the shoulder, and another over the scapula extending into the axilla. There is a broad band occupying the right inguinal region and extending along the antero-internal aspect of the leg to the foot. It is rather striking that the lesions are confined to the right side of the body.

Tuberculosis of the Skin. Presented by DR. DADE.

Previously shown before the NEW YORK DERMATOLOGICAL SOCIETY, March 24, 1908, and reported in *The Journal of Cutaneous Diseases*, July, 1908, page 313.

DR. LAPOWSKI said that this case showed two distinct varieties of lesions; there were scattered single tubercles, corresponding to a tuberculide, and a few patches. Might not the case be miliary tuberculosis, and the large patch formed by coalescence of tubercles? He did not consider it Bazin's Disease, because in that case the ulceration should cover the whole surface of the lesion, and not occur in small foci, as here.

DR. POLLITZER asked Dr. Dade what form of tuberculosis he considered this to be. The scattered papules corresponded with the so-called tuberculide, but the ring-shaped ulcer did not correspond to any description of a tuberculide, nor to any of the recognized forms of tuberculosis.

DR. TRIMBLE said he believed this case to be one of erythema induratum of Bazin. In his experience, ulceration was quite a common feature in Bazin's Disease, small outlying lesions, simulating those of necrotic granuloma, were also occasionally seen. He did not consider erythema induratum a true tuberculosis of the skin, although one or two observers had claimed to have found the bacilli in the lesions; until this was proven more definitely, he still classed it with the tuberculides.

DR. DADE said that the case had been considered one of Bazin's Disease, but that he did not fully agree with that diagnosis. He did not consider Bazin's Disease a pure tuberculosis. This case might be called a tuberculide, if you will, but a biopsy had not been permitted, so its real nature was not yet established. The color was much bluer by daylight than by electric light.

Tuberculide. Presented by DR. LAPOWSKI.

The patient is a girl aged twenty-two, single. Neither a family nor a personal history of tuberculosis or malaria or any other infectious or chronic disease could be obtained. The present disease started three years ago, lasting up to the present time. During the three years various parts of her body:—trunk, sacral regions, buttocks and thighs were invaded, leaving scars with dark brown pigmented borders. At present, on both arms, on dorsal aspect of both hands and on the face are scattered pea-sized tubercles, some stony hard, some soft, with necrotic centres. No cutaneous tuberculin test was performed.

Keloid, Two Cases of. Presented by DR. LAPOWSKI.

One patient is a baby with a fresh keloid after a burn; the other is

an old woman with an extensive keloid on the back. They are shown to demonstrate the hypertrophic character of keloid in its very early and in its late stages.

Favus Cured by the X-ray. Presented by DR. HOWARD FOX.

The patient is a woman, a Russian. The disease began when she was eight years old. Treated by ointments till she was fourteen, when the disease appeared to be arrested. It reappeared five years later, when she consulted a well-known dermatologist who made a positive diagnosis of favus and treated her for three years by persistent epilation. For a year and a half, this was done personally by the physician and for an equal length of time by the patient's husband. X-ray treatment was then begun. The patient had been so despondent about her affliction that she had lost twenty-five pounds in two years. The disease now involved the greater part of the scalp. As the scalp was treated in sections, a large number of sittings (40) were given. The treatments averaged five minutes, tube distance sixteen centimetres, a tube of low vacuum being used. With the exception of a slight fringe of hair in front, the entire scalp was epilated. Two months later, the hair returned, leaving the scalp normal in appearance, with the exception of occasional pustules. The precaution was always taken to epilate about the pustules although they never showed the presence of a fungus under the microscope. Attempts to cultivate a fungus from these pustules and from hairs upon glucose agar were invariably unsuccessful. Two years have now elapsed since the treatment by X-ray and a complete cure appears to have resulted. There is a little alopecia and scarring typical of favus. The patient has, however, a fine head of curly hair. She has regained her normal weight and in addition her peace of mind.

DR. LAPOWSKI said that in his experience the hair which comes back after an X-ray alopecia was lighter than the original. He had had good results in the treatment of cases of favus in patients who had passed puberty. He questioned if such good results were always obtained in younger patients.

Case for Diagnosis. Presented by DR. LAPOWSKI.

The patient is a woman about forty-five years old. There is no history of syphilitic infection. The anterior surface of the nose from root to lower one-third, is covered with a white thin, pliable concave scar, with raised edges. On the edges of the upper part of the nose are millet-sized ulcerations with crateriform centres and sharply cut borders, arranged in a semi-circular form. On the same edges are slightly hard tubercles like mother of pearl. The process on the lower part of the nose started several years ago, and has not been treated, the disease running its normal course. I present the lesions as gummata.

DR. ROBINSON said that on account of the slightly elevated, firm, waxy

margins at the spreading area and the smooth scar resulting from the action of the disease on the tissues he would make a positive diagnosis of superficial epithelioma.

DR. DADE said it was a superficial epithelioma of the root of the nose, and could be cured readily with best cosmetic effect, by the use of the carbon dioxide ether process that he had instituted and had been using now on such cases for the past five months when unable to get liquid air.

DR. LAPOWSKI said that he believed this to be a gumma, on account of the scar, and the ulceration behind a raised advancing border. In a woman of this class, an epithelioma of three years duration should be in much worse condition.

Case for Diagnosis. Presented by DR. LAPOWSKI.

The patient is a boy, twenty-three years old, a tailor. The present condition is of three weeks' duration. The lower one-third of the right leg around the malleolus is inflamed and œdematous. The skin is red and tense, but painless to the touch; only on stronger pressure especially around the fibula, pain is felt. The redness and swelling is sharply defined, and raised above the surface. On palpation, fluctuation is felt. On the trunk there are old, round, thin, slightly concave scars. The mucous membranes are normal. No glands are enlarged. His mother had four miscarriages—three before and one after the birth of the patient. Five years ago a tumor (gumma?) of the left breast of mother was removed, leaving a normal scar, without any recurrence. Mother denies syphilis.

DR. DADE said that this was not syphilis. Neither the œdema nor the large femoral gland were syphilitic lesions, while the other scars were much more like those of tuberculosis. The chain of glands extending up from the foot lesions to the very much enlarged femoral gland was highly suggestive of a tuberculous lymphangitis.

DR. CLARK said that in all probability this patient had a tuberculous osteomyelitis of the tibia.

DR. LAPOWSKI said that if the lesions were tuberculous, some sign of tubercle should appear in the scars; while in fact the scars are free from active disease. He had seen many cases of gumma with œdema, which may be superimposed on a syphilis. The enlarged femoral gland he believed to be due to a secondary infection.

Sycosis Cured by the X-ray. Presented by DR. HOWARD FOX.

The patient is a man thirty-three years old. He was treated one year ago for a small area of sycosis of lower lip, the size of a quarter. (Photograph shown.) The lesions had then existed during two previous winters. He was given eight treatments, with a high tube; tube distance averaging fourteen centimeters. The disease was cured and has not relapsed during past year.

Tuberculosis Verrucosa Cutis. Presented by DR. DADE.

This patient was presented as an example of a cure by liquid air.

DR. LAPOWSKI said that he had seen two cases of this disease which relapsed after apparent cure by carbon dioxide snow.

Rodent Ulcer. Presented by DR. MACKEE.

The patient is a man forty-five years of age, presenting a rodent ulcer involving the orbit, nose, upper lip and the greater part of the right cheek. The base of the ulcer rests upon the bone. The disease began about eighteen years ago at the inner canthus of the right eye. He first came under observation about five years ago when the lesion was the size of a silver dollar. It readily responded to X-radiation administered by Dr. Fordyce but recurred in a few months. In the past five years he has had several recurrences which have always responded very promptly to the Röntgen ray. One year ago the X-ray ceased to be beneficial and the ulcer progressed very rapidly. Two months ago the advancing edges were treated with the high frequency caustic spark (fulguration), since which time the tumor, with the exception of one small focus, has been inactive.

DR. CLARK said that a single severe exposure to the X-ray, even to the extent of destroying sound tissue, would have given much better ultimate results than the repeated smaller exposures which are stimulating in character and more apt to be followed by a recurrence.

Rodent Ulcer. Presented by DR. MACKEE.

The patient (from the Fordyce Clinic) is a man twenty-six years of age, presenting a rodent ulcer involving the inner canthus of the right eye. The lesion began at the age of seventeen. It was first treated by the X-ray three years ago with very prompt effect. He has had several recurrences which have always promptly responded to the Röntgen ray. The lesion at the present time again presents signs of activity. The case is of interest on account of the age of the patient when the lesion was first noticed.

Acne Indurata Cured by X-rays. Presented by DR. HOWARD FOX.

The patient is a woman forty-four years old, a German. She has suffered more or less from acne of the back since she was fifteen. She had a severe attack thirteen years ago following childbirth and another attack eight years ago and was treated by Dr. Aitken, by lotions and curettage. When first seen two years ago, she showed aggravated lesions of acne indurata upon the back and chest. X-ray treatment was then given, ten treatments in all, tube distance averaging seventeen centimeters, a moderately high tube being used. A fairly marked first degree reaction was produced. As a result of treatment the lesions appear to be entirely cured though there is present upon the back a number of telangiectases. The patient is satisfied with the X-ray treatment, preferring the telangiectasis to the acne lesions.

DR. LAPOWSKI said that it was not justifiable to use the X-ray for an acne of the back. The same result could be obtained by the use of Vlemminckx's solution and sulphur ointment, without the danger which is inseparable from the X-ray.

Syphilis "en nappe." Presented by DR. WILLIAMS.

The patient is a man thirty-seven years of age, born in Austria. In September, 1908, he had a chancre, followed by a macular eruption in November. He took pills for two weeks and a half, ending December 13, and for one week before January 29, when I first saw him. The chancre healed early in December. About six weeks ago the present rash appeared on the scrotum, and about two weeks later on the neck. The eruption consists of dull red firm papules, so thickly set that they run together, forming irregular, raised, dry scaly patches, with intervals of clear skin. On the scrotum, many of the papules have been eroded and are exuding. The eruption is now subsiding under the treatment by mercurial inunctions, and the individual papules are much more distinct than when the patient was first seen.

Recurrent Roseola and Gumma of Penis. Presented by DR. WILLIAMS.

The patient is a man twenty-seven years old. He gives a history of having had a chancre followed by a bubo three years ago, for which an operation was performed in the Metropolitan Hospital. In December, 1907, he had a urethral discharge, followed by a hard, painless bubo. He gives no history of alopecia or of a secondary eruption, but he did have headaches, and from early May, 1908, till the end of July he had a sore throat, and during June and July, a marked left hemiplegia. When first seen, July 21, the hemiplegia was so marked that the face was drawn to the right, the left shoulder drooped, there was considerable loss of power in the left hand, and a slight limp, but the hemiplegia was never absolute. The uvula, fauces and tonsils were inflamed, the upper border of the inflammation forming a sharply outlined double arch. There were condylomata lata in the anal region. Two weeks later there was a mucous patch on the left tonsil. He was treated by inunctions, but was very irregular. On September 3, he had an ulcerated tubercular syphilide on the perineum. He now shows two ulcers on the prepuce; each is indurated, punched out, with a yellow discharge and a red border. On his trunk is a circinate macular eruption. He is shown especially on account of the ulcers on the penis, which bear very close resemblance to chancres, but which are really small ulcerating gummata.

DR. POLLITZER said that the case was interesting, as the concurrence of an ulcerated gumma and a roseola was unusual, and might be misleading. He had under observation a patient with a tubercular syphilide and a coincident roseola.

Case for Diagnosis. Presented by DR. DANA HUBBARD.

The patient is a boy four years old. His parents are alive; Hebrews of the Ghetto district. He presents a maculo-papular eruption spread over the entire surface of the body, including palms and soles. The lesions occur in groups, and are intensely itchy, but when the tops of the papules are broken, itching ceases. When the papules are ruptured vesicles form, heal and reappear. The duration of the disease is four years. When first seen it was thought to be vesicular urticaria, but on account of the duration, and the grouping of the lesions, a diagnosis of dermatitis herpetiformis is suggested.

Case for Diagnosis. Presented by DR. POLLITZER.

The patient is a man sixty-five years of age, of good general health. A large patch about two and a half inches in diameter on the left thigh is now recently epidermized. Two months ago the lesion was covered by a thick, heaped up mass of adherent crusts. Many of them yellowish in color, and suggesting the crusts of favus, intensely pruritic, painful to the touch, and bleeding readily. The lesion when first noticed, fourteen years ago was the size of a dime, and covered by a thin, tough scale or crust. To relieve the pruritus, the patient applied pure carbolic acid, and this treatment was continued for several years. A dermatologist of this city curetted the affected area seven years ago, with only temporary relief. The present result was achieved by the persistent use of salicylic acid, soap plaster and ten exposures to the X-ray. A microscopic examination of a portion of the lesion cut out at its periphery showed only granulation tissue; no atypical epithelial proliferation. About nine years ago, a few smaller patches similar to the first were observed on the back and upper thorax, and since then, there has been an increase in the number of these lesions, which now are present to the number of about a dozen, located on the back, chest, outer side of the elbows and arms. The crusts covering these lesions are thin, dry, leathery, brownish-grey in color and may be removed with a little effort, leaving an occasional bleeding point. The lesions suggest an atypical psoriasis in some respects, and a senile keratosis in others, but the points of difference are numerous and obvious.

Cicatricial Contraction of Unusual Extent Following Late Syphilitic Ulceration of the Skin. Presented by DR. W. S. GOTTHEIL.

Emory N., forty-three; admitted to City Hospital, October tenth, suffering from "ulceration" of both elbows. At thirty acquired gonorrhœa and "chancre" followed by rash over the body; other syphilitic symptoms denied. In the early summer of 1907 had "gumma of the brain" with consequent paralysis of the left side, with which he was sick for three months. During this same summer had extensive ulcerations over the arms, shoulders, and legs, which

kept him in bed all the time. Whilst thus bedridden he lay continuously on either side of the body with his arms flexed, so that there was continuous pressure on the elbows. This, he states, is the cause of the ulcerations for which he enters the hospital. He denies absolutely that he has ever been burned or suffered from any accident. The deformities and disabilities that he suffers from are entirely due to the paralysis and ulceration that he suffered from this summer. He lived in a small town on the Hudson, and was under local care.

Examination: The patient is an undersized and badly developed individual, but has fairly healthy organs with the exception of the lesions to be noted here. There are remains of his hemiplegia evident, though he gets around pretty well. His face and the greater part of his scalp are covered with larger and smaller irregular superficial, white cicatricial areas, which look as if they dated further back than the summer just passed. These scars are very numerous, with healthy areas of skin, in which the pilous and glandular structures are preserved, between them. Both arms, and hands, from beyond the shoulders clear down to the knuckles, have the skin replaced by an unbroken mass of dense and ridged cicatricial tissue. The shoulder joints are moveable; but the elbows are held firmly flexed almost to the extreme, so that the forearms and hands point to each opposite shoulder. Dense and thick cicatricial bands at the elbows keep the arms in this position and bands of lesser extent and thickness keep the wrist inflexible. The cicatricial tissue on the left side ends at the middle of that side of the back in a large, circinate, scalloped margin, which curves around several inches below the axilla to the front of the shoulder joint. On the right side the cicatricial tissue does not extend on to the back. On various other parts of the back are larger and smaller circinate smooth cicatrices; and on various parts of the thighs and legs are other scars of similar appearance. The only contractures, however, are on the upper extremities. The only active lesions are on either elbow, the entire points of which are the seats of ulcerations covered with healthy granulations, and evidently closing up. There seems no reason to doubt the accuracy of the statement that these latter have been occasioned by pressure.

The extreme cicatricial contractions of the elbows, however, are something that I have never seen as a consequence of serpiginous gummatous ulceration of the skin and subcutis. The whole deformity resembles that occasioned by a very severe burn; but the most careful questioning has failed to elicit any information as to occurrence of any such accident. The patient's arms, he states, were normal before last summer; and his whole dermal and subcuticular condition is due to the "ulcers" that occurred at that time.

The ulcerations of the elbows are now (November 1st) nearly cicatrised under ordinary antiluetic treatment; and the patient will be transferred to the surgical ward for an attempt to relieve his disabilities.

Chancre of the Nipple. Presented by DR. POLLITZER.

The patient is a young woman five months married. She shows a partly healed indurated reniform ulcer on the left nipple, adenopathies and roseola. The husband admits an antinuptial infection and exhibits a mucous patch in the mouth. The mode of infection is obvious.

CHARLES M. WILLIAMS, M. D.
Secretary.

BOSTON DERMATOLOGICAL SOCIETY.

December, 1908.

DR. C. J. WHITE in the chair.

Naevus Vascularis. Presented by DR. T. S. BURNS.

The subject of this affection was a male infant, nine months of age. A major portion of the left cheek, frontal region and portions of the left temporal, parietal and occipital regions were involved. The growth was cavernous in type and presented itself as deep cyanotic red areas considerably elevated above the surface of the skin. The left eyelids were so tumefied as to occlude vision on that side. On the upper lid there was a small ulcerated area that bled profusely from time to time. Under treatment by liquid air a considerable portion of the naevus had healed. The eyelids were almost in a normal condition. It seemed to be only a question of time when the whole growth might be destroyed. It had been observed that usually a larger area than that actually treated healed after the application of liquid air. This was probably due to a destructive action on the blood vessels in the immediate vicinity of the congelation.

Hyperidrosis. Presented by DR. H. B. TOWLE.

When seen a week ago this child presented on the centres of the palms of both hands a sort of triangle with the base downward, which was red and covered with closely aggregated small pin-head, almost globular vesicles with clear contents and thick walls. Along the palmar surfaces and the sides of the fingers were many similar but more widely separated vesicles. To-day the palmar vesicles have disappeared and all that remains of the former eruption is a redness. The skin everywhere is covered with a moist perspiration which is perhaps less marked than a week ago. The skin of the fingers now is dry and desquamating in large and small flakes, while vesicles can be seen only here and there. The finger nails are brittle and show transverse ridges and slight longitudinal fissures. Beneath the ends of the nails, especially on the left hand, is a thick accumulation of brownish, somewhat powdery substance which remotely suggests *tinea trichophytina* but, when examined under the microscope, no fungi were discovered.

Secondary Syphilide. Presented by DR. C. J. WHITE.

A young woman exhibited on the backs of both hands numerous deep, dark-red, nodular areas of infiltration somewhat resembling lesions of erythema nodosum except for the depth of color. On the right frontal region was a quarter-sized annular lesion composed of closely aggregated and slightly scaling papules. To further support the diagnosis mucous plaques of the mouth and vulva were present.

Raynaud's Disease; A Possible Case of. Presented by DR. H. C. TOWLE.

Patient, female; seventeen years old; native born; occupation, home. The present affection of the hands began three years ago with transient cyanosis and without any very marked subjective symptoms. Whereas at first the color of the hands were not deep and was intermittent, as time went on the color deepened and became more persistent. As the cyanosis increased the subjective symptoms increased in the same measure. At the outset, when the color was not intense, the subjective symptoms were not noticeable, but accompanying the increasing depth of color came first burning and tingling which recently has changed to a dull radiating pain.

Although the patient has not been very strong and is of a somewhat neurotic temperament, she had had no especial ailments except adenoids. These were removed in July, 1908.

The patient was first seen in the Skin Out-Patient Department, Massachusetts General Hospital, September 4, 1908, when it was noted that "both hands are purplish-red, cold to the touch and sweating." Cold water and alcohol baths were prescribed together with tanoform and lotio alba. As the condition showed no improvement the patient was sent to the Hydro-therapeutic Department. There she was given a hot shower, followed by a cold shower—110°-70°—for two minutes, followed by a rub for one minute. Four treatments were given between November 11 and November 21. The reaction after each treatment was good. The pulse was noted November 11 to be 108-100 and November 21, 90-80. There was no real improvement in the condition of the hands however. The note made in the Skin Department November 21 reads: "Both hands and half the forearms were cyanotic when first seen to-day. The skin was cold and damp. The right hand then gradually changed color and became red and began to swell. Prickling. The heart is negative." When seen ten days later the condition was worse. The hands and, to a somewhat less degree, the lower halves of the forearms were cold, sweating and almost blue. Upon pressure or elevation the blue color was replaced by a pale yellow. Also the patient now complained of a dull pain in the hands which occasionally radiated up the arms. The cyanosis has become almost permanent and is but little affected by temperature changes. The greatest relief in the course of the affection has been obtained by hot baths, but the relief was only temporary. Internal medication has seemed to be without effect.

Recurrent Pityriasis Rosea. Presented by DR. H. P. TOWLE.

C., age twenty-seven; occupation shoemaker; born in Russia. Father living. Mother died in childbirth at thirty. Two brothers living and well. One brother died in infancy.

Patient has always been well. Never had any illness even in childhood. Drinks neither tea nor coffee. Two or three beers daily. On Sundays only, two whiskies. No tobacco.

March 27, 1907, presented himself at the Medical Out-Patient Department, Massachusetts General Hospital, with a history of pain which, beginning in the right side of the back one week after, was now localized in the right upper abdominal quadrant, and which was so severe as to keep him awake. Appetite poor. Bowels regular.

The physical examination was as follows: "Weight, 164; T.—99°; Hæm. 99%; urine—sp. gr. 1008; albumin—slight trace—sediment; few small round cells and squamous epithelium; few hyaline and fine granular casts, some with red cells attached; spleen—palpable; heart—apex 5th space, nipple line; no murmurs; abdomen—negative; ring-worm patches all over chest and arms."

A further note made in the Medical Out-Patient Department, December 1, 1908, reads: "Returns with old complaint. Psoriasis." The patient was then transferred to the Skin Out-Patient Department, where the eruption was diagnosed as pityriasis rosea. The lesions were typical and were most abundant upon the right side of the abdomen and upon the right thigh as far down as the knee. Lesions were also present, but in lesser abundance and smaller upon the left side of the abdomen. Upon the inside of the right leg was a lesion older looking than the others, which suggests a possible "mother-patch."

The patient insists that the eruption of March, 1907, was in every way similar to the present and disappeared in the course of a few weeks. This statement is corroborated in a way by the medical records, which say that there were "ring-worm patches all over the chest and arms." The question naturally arises therefore in view of the improbability of the previous disseminated eruption having been ring-worm, as to whether it was not in fact pityriasis rosea.

Folliculitis. Presented by DR. H. P. TOWLE.

According to the meager history, the patient has never been entirely free from the eruption from birth to the present time. The first appearance is said to be a red papule, which soon becomes covered with a crust and disappears in a few weeks, leaving a scar behind. While the number of lesions present at any one time varies, no connection has been noticed between the seasons and the activity of the eruption. There are no especial subjective symptoms. The previous history of the patient and his family history could not be obtained. The eruption is limited to the face, the forearms, chiefly on the outer surfaces, and the backs of the

hands and fingers. The boy is rugged and gives no evidence of any affection of the internal organs. Scattered over the face, most abundantly on the cheeks and chin, are fairly numerous, very sharply defined, round scars, depressed somewhat below the surface. In nearly every instance the base of these scars shows several pin-point-sized pits which are slightly reddened. On the outer surfaces of the forearms and on the backs of the hands are similar scars in great numbers. On all the regions involved the size of the scar is almost uniform, averaging an eighth of an inch in diameter. On the forearms and hands, particularly near the wrists, are other lesions which apparently represent various stages in the evolution of the eruption. The most active lesions are small, round, firm papules whose centres are somewhat depressed and from which a hard, dry, horny plug protrudes. Upon removing this plug another deep funnel-shaped depression is exposed. Immediately surrounding the papule is a deep red zone about one-eighth of an inch wide. In slightly older lesions the depression at the summit of the papule is more marked and has become wider as the papule has shrunk, this making the central plug more prominent. The lesions which are apparently the oldest present only a deeply colored, flattened, scarcely elevated desquamating papule, some with a central depression alone remaining to mark the sight of the plug.

T. S. BURNS, M. D., *Secretary*.

CHICAGO DERMATOLOGICAL SOCIETY.

November 27, and December 17, 1908.

DR. JAMES NEVINS HYDE, Chairman.

Generalized Eczema. Presented by DR. PARDEE.

The child, twelve years old, was cachectic, presenting all the stigmata of neglect and underfeeding. The eruption was located principally in the axillæ, groins, and over the flexor surfaces generally; it had been present with slight exception since infancy.

Case for Diagnosis. Presented by DR. ORMSBY.

The patient was a woman, aged twenty-seven years, and had been the subject of the disorder for six years. The family and past personal history were negative except that the patient was unusually nervous. The lesions, which were papular and crusted in some places, were situated in the axillæ and extended around the neck in the form of a band. The patches were peculiar in their sharply defined and linear arrangement. The subjective sensation was intense itching. The individual papules were red, acuminate, and had a round base.

No definite conclusion was arrived at concerning the diagnosis.

Favus Treated with X-Rays. Presented by DR. ORMSBY.

The patient, a young woman aged twenty-three, had suffered with the disease for eleven years. This case was exhibited at the June meeting of this society with a fairly extensive and typical favus involving many areas of the scalp. The usual symptoms were present, including active scaling and crusted lesions and atrophic patches, the former sites of activity. Two weeks after a single prolonged exposure to the rays, the hair began falling. In four weeks the entire scalp was denuded of hair except small areas in the occipital region. No visible reaction occurred in the skin of the scalp. After two months the hair began to grow and a good growth was present when exhibited last except in the atrophic areas above mentioned. The result in this patient was nearly ideal from a therapeutic standpoint.

Chancre of the Tongue. Presented by DR. E. A. FISCHKIN.

The patient, a young man twenty-seven years of age, was exposed five weeks before. Three weeks later he noticed a lesion on the dorsum of his tongue; a few days after, the tonsils became greatly swollen. When shown, the lesion was about a third of an inch in diameter, rounded, presented an eroded surface, slightly excavated in the center, and was seated unusually high on the dorsum. The induration was quite typical and deep; the tonsils were very much enlarged.

Generalized Lichen Planus. Presented by DR. W. A. QUINN.

The patient was a boy three years old; duration six weeks. The sister of the child reported that the rash appeared in one night over the entire body and that her parents believed the child had scarlet fever. When first seen it presented a generalized dermatitis of the face and hands with some œdema, while over the covered parts of the body, the characteristic lesions of lichen planus were very distinct. When presented at the meeting the dermatitis of the face and hands had subsided, the lichen planus papules remaining.

Lupus Erythematosus. Presented by DR. W. A. QUINN.

The patient was a Norwegian woman, forty-four years old. The patient stated that two years previously she first noticed a small red pimple on the left cheek. Others appeared from time to time. At present there are a number of lesions on both cheeks, covering an area about the size of a silver dollar, with a few lesions on the nose. It is of a superficial type and no scars are present.

Generalized Lichen Planus with Unusual Features. Presented by DR. JOSEPH ZEISLER.

The patient, a man of forty-five years, traces his affection to the appearance of lesions upon his tongue, his palms, and soles many years ago. At the present time the whole surface, including the face, is involved with the exception of a very few small areas. Exfoliation of the epidermis exactly as in pityriasis rubra, is a striking feature. No suggestion of typical lichen planus papules can be discovered save in a few patches where their mosaic arrangement permits of making the true diagnosis. The palms and soles present a generalized hyperkeratosis. Upon the tongue, which is bright red and exfoliated, are seen a number of greyish-white small leucoplasic patches.

Eczema Marginatum. Presented by DR. HYDE.

The patient was a man, aged thirty-four, who had suffered with the present disorder for three months; the earliest lesion was a scaling patch in one axilla. At present the lesions are limited to the axillæ, the perineum, the scrotum, with a few dime-sized patches on the buttocks. The patches were pinkish-red in color, well-defined, slightly elevated, with no appreciable infiltration, and covered with fine whitish, and slightly greasy scales. The subjective symptoms were rather marked. On microscopic examination, a megalosporon was demonstrated. It was not determined to which branch of the family this fungus belonged.

Lupus Erythematosus Associated with Nephritis. Presented by DR. ORMSBY.

The patient, a woman aged forty-six years, had suffered with the cutaneous disorder for one year. She was also the subject of a nephritis. The urine contained granular and hyaline casts abundantly and a large percentage of albumin. The cutaneous disease began on the face and spread rapidly at first. When exhibited, the lesions were present on the face and ears, the region back of the ears, and the extensor surface of both forearms. The lesions were well-defined, erythematous, scale-covered, and on the face and ears presented the seborrhœic type of the disease.

EARNEST L. McEWEN, M. D., *Reporter.*

MANHATTAN DERMATOLOGICAL SOCIETY.

Seventy-third Meeting, December 4, 1908.

DR. A. BLEIMAN, Chairman.

Alopecia Areata, Band Type. Presented by DR. J. KINGSBURY.

Mrs. N. S., twenty-five, German. Seven years ago patient had an alopecia areata which lasted about one year; the hair all regrew. No

further troubles until sixteen months ago. At that time the hair began to fall from the occipital region and around the left temple. A patch next appeared at the right temple, and soon a perfect band was formed around the margin of the scalp. The top of the scalp was but slightly affected, the hair remaining long and thick. No seborrhœa. Considerable hair is lost from right eyebrow. The axillary and pubic hair remain normal. The patient's mother states that she had a similar affection when she was twenty-six years old.

DR. GOTTHEIL—The loss of the eyebrow is not common with the ordinary benign forms of alopecia areata, and is usually seen in the malignant types.

Erysipeloid of Rosenbach. Presented by DR. EDWARD PISKO.

A. P., seventeen, butcher. On November 27, while at work, cut two of his fingers. Two days later, when seen by the presenter, the right hand, up to the wrist, was swollen, œdematous and vividly reddened. The border at the wrist, both as to the swelling and color, was sharply defined. The only subjective symptom was an intense burning sensation in all the fingers. Ten days later the color of the hand changed to livid blue; the inflammatory symptoms around the site of the infection had subsided. The treatment consisted of a magnesia-zinc lotion with five per cent. phenol and ten per cent. ichthyol.

DRS. GOTTHEIL and ABRAHAMs said that they see no difference in this form of erysipelas from those of any other part of the body. The latter stated that he sees many cases of this type amongst fish dealers on the East Side.

Chancre of Left Tonsil. Presented by DR. L. OULMANN.

J. W., twenty, driver. Never sick before; has never had intercourse. For past two weeks complains of pain in his pharynx, swelling of the neck, and headache. Was seen by the presenter about one week ago. The tonsil was swollen, with a small whitish ulceration in the centre. The entire organ was stony hard, the cervical glands were enlarged. There were a few papules on the abdomen and a general adenopathy. Under anti-luetic treatment the headache disappeared and the swelling of the tonsil and cervical glands decreased somewhat.

DR. GOTTHEIL recalled a case, sent to him from Philadelphia, where an enlarged tonsil was excised by a prominent laryngologist and the patient later developed his secondary manifestations. The enlarged tonsil was undoubtedly a primary lesion.

Eczema Marginatum of Scrotum and Penis. Presented by DR. OULMANN.

X. Y., male, twenty-two. In May of this year noticed a small red patch between left thigh and scrotum. Very itchy and spread slowly. At present we find a sharply defined, infiltrated area, taking in about

two-thirds of the scrotum, one-half of the penis, and the inner aspect of the upper portion of the left thigh. *Trichophyton* fungus was found in some of the scales taken from the margin. Presented on account of the unusual involvement of the scrotum and penis and the sparing of the pubic region.

Scleroderma in a Young Child: Result of Treatment with the High Frequency Vacuum Tube. Presented by DR. A. BLEIMAN.

M. P. American, six. Came under observation about six weeks ago for an acute attack of "recurrent urticaria," so-called. From below the left elbow passing upwards and involving the entire arm, shoulder, scapular to the vertebral column, and terminating just below the angle of the left scapula, the skin was typically sclerodermic. The rest of the body was free. In order to keep the case under observation and for demonstration at this society, the high frequency vacuum tube was applied as a placebo, with the astonishing result that the induration was markedly lessened. At present the border of the indurated area is somewhat reddened as the result of the treatment.

DR. ABRAHAM has found that by the administration of thyroid extract in scleroderma without atrophy, some good was accomplished. When atrophy was present nothing was affected.

Verrucous Tuberculosis and Tuberculous Ulceration of the Mucous Membrane of the Hard Palate. Presented by DR. E. W. DITTRICH.

C. J., forty-two, American. Present condition began about one year ago. The patient wears an upper plate, but this does not come in contact with the affected area. First noticed a small red spot on the right side of the palate, about one-quarter of an inch behind the posterior margin of the plate; this spot soon ulcerated; was not painful, and showed no tendency to heal. Was variously treated and finally healed after cauterization with nitric acid. It remained quiescent for a short time, but about two months ago it again broke down. Examination of the patient's chest shows a tuberculous infiltration at both apices.

On either side of the median line of the palate is a somewhat triangular dirty looking verrucous mass with sharply defined anterior border, the posterior end merging into the soft palate, with moderate surrounding inflammation. The mass consists of an aggregation of small hypertrophic papules. There are two spots where these papules are broken down, forming an irregular, sharply cut, moderately superficial ulceration. About two millimeters from edge of the ulceration was a pin-head, translucent, deep-seated white spot (undoubtedly a tuberculous focus); this subsequently broke down and formed a third ulceration. Microscopical examination of a portion of the lesion (by Dr. Satenstein) showed a distinct tubercle containing a few giant cells.

M. B. PAROUNAGIAN, M. D., *Secretary*.

REVIEW of DERMATOLOGY AND SYPHILIS

Under the Charge of GEORGE M. MACKEE, M. D.

SERUM DIAGNOSIS

By HOMER F. SWIFT, M. D.

The Principles and Technique of the Wassermann Reaction and Its Modifications. HOWARD FOX (*N. Y. Medical Record*, LXXV 421), March, 1909.

In this article Fox reviews the principles of the complement fixation phenomenon of Bordet and Gengou, illustrating it by means of figures. He then covers the subject of the antigen used in the Wassermann reaction, and gives in detail the collection and preparation of the various materials used in the test, with a detailed description of the steps and controls. Bauer's modification, in which the foreign hæmolysin is omitted, is described and discussed. The method of Tschernogubow is given. Here both the cells and complement present in a sample of human blood are used. The objections to this as given by Noguchi are mentioned. Finally Noguchi's method is described.

Fox's results with the Wassermann reaction are: secondary syphilis, 95 per cent. positive, tertiary 69 per cent. positive, latent 19 per cent. positive, and cases with a doubtful diagnosis, 33 per cent. positive. The article ends with histories of a few cases in which the reaction was of value in making a diagnosis.

A New and Simple Method for the Serum Diagnosis of Syphilis. HIDEYO NOGUCHI (*Jour. Experimental Med.* XI, p. 392), March, 1909.

This is a new method which appears to make the serum diagnosis test much more simple, as well as more delicate. Noguchi shows that because many samples of human serum are hæmolytic to sheep cells, the presence of the syphilitic antibody is often masked in the Wassermann method, especially when the antibody is present in only small amounts.

By using a human hæmolytic system instead of a sheep hæmolytic system he hopes to eliminate this element of error.

The various reagents used in applying the test are: 1. Anti-human hæmolytic serum, prepared by immunizing rabbits to human cells. 2. Complement. Guinea-pig serum in the quantity of 0.04cc. to each tube. 3. Antigen. Alcoholic extract of normal organs or syphilitic livers. 4. Suspension of human red blood cells. One drop of blood to 4cc. of normal salt solution. One cubic centimeter of this solution to each tube. 5. Serum to be tested. One drop from a capillary pipette in each tube.

This serum is not inactivated by heating as is done in the Wassermann test. To make the test more available the anti-human serum, the complement and the antigen are dried on filter paper so that a piece of paper represents the amount needed. In applying the test the serum under examination, the complement, antigen and cell emulsion are mixed and incubated for one hour, after which the hæmolytic serum is added, and the mixture incubated two hours; if no hæmolysis takes place, the test is considered positive. A number of control tubes are also required. The results, comparing the new method with the Wassermann reaction in one hundred and twenty-five cases, show the former to be more sensitive in all stages, especially marked in latent syphilis and tabes. The article closes by calling attention to the value of the method in the control of treatment, and the ease of applying this test adapts it specially to this end.

The Wassermann Reaction with Active and Inactive Serum. H. BOAS
(*Berliner klin. Wochenschr.*, XLVI, p. 400), March, 1909.

Previous work by Sachs and Altmann has shown that active serum is more powerful, but not so specific. Boas uses a color scheme indicating the number of red cells hæmolysed, to show the intensity of the reaction. Active serum in a number of tests was four times as powerful as inactive. A table is presented showing forty-five cases non-syphilitic which gave a positive reaction. All of these were negative with inactivated serum. Charts are given showing that the reaction persists in cases under treatment much longer with active serum. Boas has also seen some cases which gave a negative reaction with active serum; this he thinks is due to an excess of complement being added by the human serum.

The conclusions are: First, that all sera used in the complement deviation test should be inactivated. Second, in syphilis active sera are more delicate. Third, the methods of Tschernogubow and Hecht are not reliable because they employ active serum.

TREATMENT OF SYPHILIS

By FAXTON E. GARDNER, M. D.

Arsacetin in the Treatment of Syphilis. A. NEISSER (*Deutsche Med. Wochenschr.* No. 35), 1908.

Neisser states first that, in presenting this new arsenic compound, he does not propose to have it substituted for mercury, which has been so long tested and found worthy. This is good to hear, in view of the statements of certain manufacturers of organic arsenical products, that mercury must not be used in conjunction with their compounds. The association of mercury and arsenic is perfectly justified according to Neisser.

He then reviews the attempts, both experimental and clinical, at an arsenical treatment of syphilis. Arsenic acid cannot be used, sodium cacodylate is entirely useless, atoxyl is active and has given good results in France, but in Germany untoward sequelæ have been noted. These Neisser ascribes unhesitatingly to the unstable character of the German product. Ehrlich, considering on one hand, the unquestionable good effects of atoxyl on the syphilitic virus, on the other hand its inconveniences, asked for another preparation of the atoxyl group and this led to arsacetin. This is sodium acetylparamidophenylarsenate. As compared with atoxyl, arsacetin is less poisonous, at least as efficient, and very much more stable. Neisser has used it extensively in Batavia, in monkeys and of late in human subjects. In numerous cases, it cures symptoms promptly, in others, it fails. Relapses are not prevented, and as far as the control of symptoms is concerned, it is inferior to mercury. But the control of symptoms is not an accurate barometer of the action of the syphilitic poison, which experiments show to be very great. Two or three decades of clinical investigation will still be needed to give us definite ideas as to the value of these organic arsenic compounds.

Neisser injected nine grains of arsacetin, equivalent to seven and one-half grains of atoxyl, in a ten or fifteen per cent. solution, on two successive days every week. Whether this is the proper internal dose in all cases, he does not yet know. He has not seen abscesses or infiltration, nerve atrophy or nephritis. Pains in the stomach were rarer than with atoxyl, and they can be controlled by the use of alkaline waters. Some sudden and short rises in temperature have been noted. In nephritic patients, the tolerance must be first ascertained. Good results might be expected from the association of small doses of arsenic acid with arsacetin. In closing Neisser states, "but let us not forget that this is simply the beginning of our studies of a new treatment of syphilis, which may justify later our great expectations."

The Testing of Needles Used for Insoluble Mercurial Injections.

L. LAFAY (*La Clinique*), Apr. 23, 1909, pp. 262-264.

Lafay, who has devoted several years to the study of mercurial products intended for injections, calls attention to the requisites of a good needle for use with an insoluble mercury preparation. Those pertaining to the length, rigidity, fineness, perviousness, perfect smoothness and sharpness, are well known, but particular stress is laid on a detail not mentioned in text-books and which has some practical importance; namely the existence of lateral fissures, cracks, or even holes, along the needle. These imperfections are not only seen in needles which have had considerable service, though their frequency among those just "put in shape" again by the manufacturer is very great, forty-six per cent according to Lafay's statistics, but they are found also in brand new platinum needles. Examining a lot of new needles, Lafay found:

Of 100 needles	2 inches long,	15 defective	= 15%
Of 6 needles	2½ inches long,	1 defective	= 17%
Of 6 needles	2¾ inches long,	2 defective	= 33%
Of 6 needles	3¼ inches long,	3 defective	= 50%

It will be seen that the proportion of defective needles grows with the length, but that it is by no means inconsiderable even with the 2-inch needle, the most commonly used. These defects are hardly to be avoided, owing to the physical properties of platinum and the mode of manufacture.

If such a defective needle be used with an insoluble preparation, some of the latter leaks into the subcutaneous connective tissue and the result is a crop of small furuncles (Duhot), a nodosity, a small sterile abscess or even a slough (Thibierge). A very simple test will enable us to detect these imperfections. Drive the point of the needle in a cork or a piece of rubber, fill the syringe with water, adjust it and push moderately hard; any fissure will let the water leak out; and the needle should be rejected.

BOOK REVIEWS.

Diseases of the Skin and the Eruptive Fevers, by J. FRANK SCHAMBERG, A. M. D., Professor of Dermatology and Infectious Diseases in the Philadelphia Polyclinic and College for Graduates in Medicine; Diagnostician to the Bureau of Health and Consulting Physician to the Municipal Hospital of Philadelphia; Member of the American Dermatological Association. *W. B. Saunders Co.*, 1908.

The author has succeeded in preparing a practical work on dermatology, which on account of its small size and accuracy will be of great service to both the undergraduate and the general practitioner. The essential points in the ætiology and pathology of each disease are given in a terse, connected and easily digested manner. Confusing arguments and theoretical statements, as well as case reports, are conspicuous by their absence. Treatment and especially symptomatology have received considerable space and careful attention.

Of particular interest is the fact that the book is richly endowed with exceptionally fine clinical illustrations. In fact the reproductions are so numerous and perfect that we congratulate both the author and the publishers upon the result of their efforts.

The book will be of interest to dermatologists, not only on account of the reasons already mentioned, but also because the exanthemata and the various acute infectious diseases which are, at times, accompanied by cutaneous eruptions, have been rather exhaustively considered, especially from a dermatological standpoint. In this respect the author shows himself to be an enthusiastic follower of the old Vienna school.

The book, which comprises 534 pages, opens with a short chapter on the embryology, anatomy and physiology of the skin and a general consideration of symptomatology. The author then groups and describes the dermatological disorders according to the following classifications: Anæmias, hyperæmias, inflammations, hæmorrhages, hypertrophies, atrophies, new growths, secretory glands, mucous membranes and neuroses. There is a short chapter on actinotherapy and radiotherapy and the work closes with the interesting consideration of the acute eruptive fevers.

The book is printed in large type on a good grade of heavy paper, having a hard, glossy surface. It is substantially bound in cloth and well indexed.

G. M. M.

Genito-Urinary Diseases and Syphilis. EDGAR G. BALLENGER, M. D., Lecturer on Genito-Urinary Diseases, Syphilis and Urinalysis, Atlanta School of Medicine; Genito-Urinary Surgeon to the Presbyterian Hospital, Atlanta, Ga. With 86 illustrations. *E. W. Allen and Co.*, Atlanta, 1908.

This is a practical book, intended to fill the gap between large treatises and quiz compends, as the writer states himself in his preface. It is quite an achievement in itself to condense in 259 pages, of which about fifty are taken up by illustrations, all the essentials of urology and syphilography, and this can be accomplished only by a severe pruning of all discussions of not absolutely prime importance; this Dr. Ballenger seems to have done successfully. Such a book can be judged only from this standpoint: How would a student or a general practitioner, with the sole aid of this manual, be able to get along with the ordinary routine work of urology? We believe he could do very good practical work, even if he might remain unfamiliar with pet theories expounded at full length in a bulkier treatise. And this may help us to overlook the sometimes artificial and slightly arbitrary succession of chapters.

F. E. G.

Lehrbuch der Haut—und Geschlechtskrankheiten. Herausgegeben von Professor DR. ERHARD RIECKE, Leipzig. Mit 14 Farbentafeln und 235 grossenteils mehrfarbigen Textabbildungen. Jena, Verlag von Gustav Fischer, 1909.

This book in many ways resembles Saunders' American Text-Book of Genito-Urinary Diseases, Syphilis and Diseases of the Skin, edited in 1898 by Bangs and Hardaway. Like its American predecessor it owes its origin to the desire of the publishers to add a text book on these various disciplines to a series of similar books on other branches of medicine which represent certain principles, in this instance primarily to combine a precise text, avoiding everything hypothetical and immaterial, with a lavish number of instructive illustrations, in order to create a work which would furnish to the student a suitable support during dermatological instruction and to the practitioner a reliable modern book of reference. This promise, to present a concise book which truly demonstrates the present condition of the various disciplines, has been conscientiously fulfilled and the numerous illustrations are as a rule excellent. Among the colored plates some reproduce original paintings, some from the clever hand of one of the authors (Prof. Ehrmann), others are taken from moulages; the former are particularly true to nature, the latter represent the subjects as well as a moulage can possibly do. Among the illustrations in the text the colored ones are highly attractive and instructive, in many instances even more so than the colored plates.

The authors of the different chapters, while well known through their contributions to the more recent literature, with few exceptions belong to a younger generation of German and Austrian dermatologists, whose names have not been hackneyed by their constant appearance before Congresses and in text-books, promising new and fresh ideas and methods; however, who expects to find important reforms or breaking away from old prejudices and customs will be rather disappointed.

Of the 650 pages of the book, 456 are devoted to the diseases of the skin. A chapter on general dermatology by Prof. Dr. Gustav Riehl of Vienna, which the editor especially commends in the preface, forms the first part. The anatomy and physiology of the skin are presented in a clear and concise manner. In a work otherwise so richly illustrated, some histological pictures would certainly not be out of place for instance in the description of so complicated structures as the hair and nails and their formation, the more so as the book is at least partly intended for students. The functions of the sensory nerves serving to the touch, the sensation of cold and warmth and of pain are carefully considered. There is no mention made of any pathological anatomy of the skin which might show how, subject to some peculiarities of its structure, the skin may become the seat of those pathological processes which occur in other organs and tissues like inflammation with its various phases of exudation, suppuration, necrosis and ulceration, or embolism, atrophy, hypertrophy, etc. Instead under the heading of symptomatology we are introduced as usual into the old morphologic doctrine of the efflorescences or lesions, the knowledge of which must be the principal aim of all dermatological instruction.

In the second part, the Special Dermatology, the diseases of the skin have not been forced into any system by the editor because he could not find one which enjoys general recognition. They are rather associated under no other heading than the name of the writer and into groups for the formation of which apparently, partly pathological, partly morphological and topographical considerations have been responsible. The acute exanthemata and erysipelas have not been considered at all.

The first chapter written by Prof. Salomon Ehrmann, of Vienna, includes acute and chronic eczema, also eczema seborrhœicum, impetigo, pemphigus neonatorum, impetigo staphylogenes (Bockhart), furunculosis, impetigo herpeti-

formis, dermatitis exfoliativa neonatorum (Ritter), dermatitis papillaris, gangræna, ecthyma, combustio and congelation, largely diseases in which inflammation is the principal, more or less prevalent condition. Although a somewhat narrower definition of eczema is given by the author he almost identifies eczema and dermatitis from various causes by calling it artificial eczema, hardly a way to give a clear understanding to the student. Ehrmann considers the treatment of eczema as one of the few fields of therapeutics on which the physician can approach the ideal of all therapeutic action; to influence the manifestation of disease from the ætiological-anatomical standpoint. Therefore one will not be surprised to find the treatment recommended to be mostly external and to see just sixteen lines devoted to internal treatment. However, disturbances of metabolism (diabetes) are duly recognized as causes of some forms of chronic eczema; particularly lichen chronicus circumscriptus (Vidal), is declared to be a chronic auto-intoxication from long continued troubles of digestion and defecation.

Diseases in which the formation of scales is one of the principal features are treated in the second group by Prof. Erhard Riecke of Leipzig. Here we find psoriasis, pityriasis rubra and the exfoliative erythrodermias, the lichens and related conditions; they have been the subject of much controversy and discussion in Congresses without ever reaching a definite settlement. In smaller print, these and similar questions have been historically and critically considered. The author recognizes but one lichen with two varieties: acuminated and planus; among the atypical forms lichen pemphigoides, characterized by the formation of blebs (Allen), is enumerated, pityriasis rubra pilaris is not recognized as a separate disease. It seems hardly justified to claim as an important point in favor of the identity of the two lichens the fact that both are favorably affected by arsenic which is not even absolutely true. The description of psoriasis is very complete.

Group C, written by Prof. Siegfried Bettmann, of Heidelberg, comprises mostly vesicular diseases and pruritus cutaneous. Herpes simplex, particularly herpes progenitalis has received much more careful consideration than in most other text-books.

In group D, Priv.-Doz. Leo Von Zumbusch, of Vienna, first mentions anomalies of circulation and vasomotor neuroses, among them erythromelalgia, then prurigo, a disease of unknown origin and nature. Urticaria interna is due to the circulation of toxic substances which irritate the nerves of the blood-vessels or the irritation is due to some central cause; the possibility of the embolic nature (Philippson and Török) is not mentioned. Related to urticaria are urticaria pigmentosa, perstans, lichen strophulus and urticatus. The erythemata exudativa and purpura are described as closely related to rheumatism; it is not apparent whether that means that they are infectious diseases or embolic or what else. The drug exanthemata are fully and excellently described in general and especially those resulting from antipyrin, mercury, arsenic, iodid, bromid and those following vaccination. Pellagra closes the chapter.

Prof. Ludwig Török, of Budapest, in group F, begins with lupus erythematosus; the author believes that under that name cases of different anatomical changes and of different course are comprised and we probably have to do with a group of diseases the causative agents of which widely differ. The question of its relation to tuberculosis is left undecided. The larger part of the chapter is taken up by the affections of the sebaceous and sweat glands, those of the hair and of the nails except the parasitic ones. Particular attention has naturally been given to acne. Török believes that besides the pus producing microbes other conditions must be simultaneously present to favor the development of the disease: seborrhœa, anæmia and chlorosis, disturbances of the stomach and

intestines and of the genitals which, however, do not require any specific treatment.

Group F, by Prof. Carl Grouven, of Bonn, opens with the important subject of tuberculosis of the skin, which is divided into lupus (including tuberculosis verrucosa cutis which is not considered sufficiently different to be separated), scrofuloderma, tuberculosis cutis propria and lichen scrofulosorum. The question of the tuberculides is briefly reviewed; as rather well founded and generally accepted are admitted: the papulo-necrotic tuberculide (dermatitis nodularis necrotica, acnitis and folliclis), acne cachecticorum and erythema induratum Bazin. Then follow lepra, actinomycosis and similar diseases, anthrax, malleus and finally rhinoscleroma.

Priv.-Doz. Egon Tomaschewski, of Halle, in group G, has had assigned scleroderma and atrophic processes and the important and interesting classes of the benign and malignant new-growths. Among the former the nævi have been duly considered, among the latter the sarcoid tumors including mycosis fungoides and the idiopathic hæmorrhagic sarcomata. Leukæmic and pseudo-leukæmic growths and elephantiasis close the chapter.

Prof. Riecke, in group H, describes ichthyosis and other partly very common diseases like clavus, partly rather rare ones like psorospemosis, acanthosis nigricans and porokeratosis.

The last chapter, I, by Prof. Albert Jesionek, of Giessen, contains the parasitic skin diseases; they have been described in an unusually complete and exhaustive manner and copiously illustrated. Among the dermatomycoses trichophyton has been given the largest space; here we find pityriasis rosea (Gibert), with the statement that it is at the present time considered as closely related to herpes tonsurans maculosus although it is acknowledged that no fungus has ever been found. In some cases of herpes tonsurans maculosus, however, the previous occurrence of general disturbances and troubles of gastro-intestinal character are specially mentioned. Among the dermatozoonoses besides the well-known numerous insects, some are here considered which are hardly mentioned in most text-books.

The third part of the book, from page 457 to 650, is devoted to the venereal diseases, one-half is taken up by gonorrhœa and ulcus molle; the author is Prof. Carl Bruhns, of Charlottenburg. As far as possible in the limited space gonorrhœa with its complications and particularly its modern treatment are amply described. In the other half, Prof. Adolf Buschke, of Berlin, has treated of syphilis. Buschke naturally has taken full cognizance of the new discoveries and investigations on syphilis in which he has himself played a not inconsiderable part, but in drawing from the same conclusions for the practice he evinces a sane conservatism, much in contrast with a great many writers, particularly in this country. Buschke holds that it is not proven, although highly probable, that the spirochæta pallida is the causative agent of syphilis. With regard to the diagnosis of the primary lesion, he states that the clinical observation is the essential part; in doubtful cases a positive result of the examination for spirochætæ may support the diagnosis while a negative result is of no consequence. Only in cases of extragenital lesions the demonstration of the spirochætæ may be of importance.

The symptoms of the various stages are briefly, but with sufficient clearness, described and amply illustrated by pictures in the text partly colored with excellent effect partly in black. Contrary to many authors, Buschke believes that leucoderma may develop entirely idiopathically without any connection with a clinically demonstrable exanthema.

In a very impressive manner Buschke warns against the heedless way in which only too frequently the diagnosis of syphilis is made by physicians without any special education or without sufficient experience. The diagnosis, he says,

ought not to be made until after the most careful deliberation and after the exhaustion of all possible means, always with consciousness of the feeling of responsibility that the diagnosis of syphilis is of the most decisive consequence to the affected individual, psychically as well as with regard to general social relations, the more so as we are bound to follow it up by a long continued and rigorous treatment.

Towards the sero-diagnostic method of Wassermann, Neisser and Bruck, Buschke, himself a former assistant of Neisser, exhibits the same conservative position; the question of the definite value of the reaction and the essential nature is not yet definitely settled; a positive reaction proves that an individual is having or has had syphilis at some time. This may be of importance in doubtful cases with an uncertain history and for the confirmation of the diagnosis in medical or surgical cases or in diseases of the organs of the senses. With regard to the indications for treatment or to the question of marriage the reaction so far is not of decisive value.

In speaking of the general mercurial treatment, Buschke again occupies a very conservative position. It must be held as the fundamental principle which must be firmly adhered to, that the general mercurial treatment must not be commenced until after the diagnosis of syphilis has been securely established. Although we now have the means through the demonstration of the *spirochæta pallida* to occasionally determine the diagnosis somewhat earlier than by the clinical observation, Buschke cannot advise—certainly not as a principle—to begin treatment earlier than it was possible before this fact was known. For on the strength of extended clinical experience as well as of experimental investigations, particularly those made by Neisser, it does appear most opportune to initiate the general mercurial treatment only after the manifestation of secondary symptoms. The reasons are the following: It may be frequently observed that in spite of the early administration of mercury not even the primary lesion shows any tendency to heal but continues to develop undisturbedly, and that the secondary symptoms cannot be cut off. It is not so rare to find that, when mercurial treatment had been commenced in the first stage of infection, at or near the end of an extended course of treatment secondary symptoms make their appearance and now necessitate the prolongation of the undoubtedly somewhat intense treatment until the manifestations have disappeared. One cannot help being impressed by such experience; that the mercury does not fully develop its specific activity of which we have no definite knowledge, until the body is thoroughly infected with the virus of syphilis, so that only then it finds the proper points for its attack in the tissue cells and can throw its anchor. On account of these two reasons, aside from the diagnostic viewpoint, it must be recommended to wait, if possible, with the institution of the general mercurial treatment until secondary manifestations have made their appearance or at least to delay it until the end of the first period of incubation.

Among the various methods of mercurial treatment first place has been given to the inunctions which still have to be considered one of the best methods. Injections, particularly those of the insoluble salts, have equally good effects, under certain forms of application, even superior ones. Among the insoluble salts the salicylate is regarded as the mildest, calomel as the most effective; the grey oil is only briefly mentioned and not recommended. Internal treatment is decidedly inferior to the other methods. For the present Buschke is in favor of the continued intermittent treatment of Fournier and Neisser. The effect of iodine on the tertiary lesions is acknowledged within its proper limits.

Altogether the book can be highly recommended to those who wish to receive an insight into the present state of dermatology and syphilography in Germany and Austro-Hungary.

H. G. K.

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TREATMENT OF CERTAIN CHRONIC INFLAMMATORY SKIN DISEASES.*

By LOUIS A. DUHRING, Philadelphia.

IT may be proper at the outset of these remarks to say a few words concerning the title of the present article, lest there be possible misunderstanding as to its scope, and which aspect of the question in particular is to be under discussion. The caption, it will be noted, is the treatment of certain chronic inflammatory skin diseases, but it must not for a moment be thought that any attempt will be made to cover completely or even partially a wide field, much less so that the subject of treatment will be dealt with in the orthodox fashion. On the contrary, it may here be stated that it is the purpose to deal with certain general underlying principles rather than with drugs and formulæ and their effect. Important and valuable as these may prove in suitable cases, yet of much greater importance is an understanding, where this is possible, of the general and specific internal ætiological factors that occasion the cutaneous manifestation.

It has long been in the mind of the writer to direct attention to this latter subject, for in his opinion it has not received the full consideration in treatises and text-books that it merits. Writers, with some few exceptions, have possibly been rather led away from it to the more attractive and brilliant field of the cutaneous manifestations. It pertains then to the manifold varied internal factors of one kind or another, which are actually the *fons et origo* of the lesions in the skin occurring in many diseases of an inflammatory nature, especially those characterized by chronicity, rebelliousness to local remedies, a tendency to persist and to recur. Many examples of the kind might be enumerated. The point of view from which cutaneous diseases has been regarded, especially the common inflammations, has from time immemorial been varied. Some observers have regarded them as manifestations of internal derange-

* Read before the 33d Annual Meeting of the American Dermatological Association, Philadelphia, June 3-5, 1909.

ment or disease of one kind or another, others as being more or less strictly confined in origin to the integument, and thus, speaking broadly, of having no special relation to the rest of the economy. It is, however, not the intention of the writer to enter further upon this controversial field, but rather to bring forward some views the result of personal observations based on an experience with many cases, and in particular with those that have been more or less closely followed over long periods. It is hardly necessary to allude to the instances of notoriously persistent chronic inflammatory diseases not infrequently encountered, cases that do not yield after faithful trials to any form of local treatment. Such diseases, well known to all, persist with little or no amelioration of the symptoms for months or years, and in some instances for a lifetime. Hence the familiar terms "chronic inflammatory disease of the skin" and "incurable inflammatory disease of the skin," "chronic eczema," "inveterate psoriasis," and the like. It is entirely unnecessary to attempt to enumerate such, but mention of one or two commoner will suffice for illustration. Thus eczema and psoriasis both afford striking instances that well illustrate the fact that the ordinary, usual methods of therapy employed for their cure are at times, yes, often, wholly ineffectual, and this whether the treatment has been external or internal or both, singly or combined. This is not the experience of any one, but doubtless of nearly all physicians. Such cases naturally pass on in the course of time from one physician to another, having in the end been treated by the most if not all of the well known methods *usque ad nauseam*. The results of such treatment surely often prove a source of chagrin not only to the family practitioner, but also to the specialist. The physician must feel and know, as doubtless does the patient, that nothing, practically speaking, has been accomplished toward his cure at the end of months, or it may be years, of active and persistent treatment of one form or another. It might be said that all that has been done by the physician in the form of advice and prescriptions and by the patient's efforts has been in vain. I regret extremely that the facts, as I have seen them in my experience, compel me in justice to the truth to make so humiliating a statement. Observation of not only my own cases belonging to this class, but also those of other physicians, leads to this conclusion.

It is with the idea of pointing out and laying stress upon other methods of treatment that emboldens me to speak further. It may here be pertinently asked why is it that some cases, say of eczema

or psoriasis and other diseases, are readily amenable to treatment, local or internal or both, while others do not respond to the same line of treatment? The cutaneous lesions may in appearance and pathological anatomy be the same in both sets of cases, yet they behave altogether differently under the same treatment. The reason may be found in what I believe to be an observation not sufficiently recognized, namely, that while the cutaneous lesions may be the same or closely similar in many cases, the causes producing them are not only varied, but may be entirely different in nature. It is the internal causes, whatever these may be, producing the cutaneous disturbance that we should study more closely, detect and treat by appropriate means. These factors giving rise to disordered states of one or another part of the economy, require to be more closely investigated than is usually done. The rôle of general medicine should be brought into action more than is customary. For some cases it is indispensable. This is a point of cardinal importance, one to which every physician who is called upon to treat chronic, obstinate cases of inflammatory disease, especially eczema and psoriasis, should devote more attention. I would, with all respect, contend from my observations that most physicians do not do so. If we were to study and investigate the probable or possible causes and symptoms present, obvious or obscure, of these chronic and rebellious cases, whatsoever the cutaneous disease may be, as much as we are prone to direct attention to the cutaneous lesions, some cases would prove to be, I believe, more amenable to treatment, and the results more satisfactory to both the physician and the patient. The observation stands good, according to my experience, that for nearly all, if not all, of the chronic persistent or recurring cases of eczema, and for some of the cases of psoriasis, and for some other allied forms of inflammation, there exist specific or general ætiological factors that must be determined on the plane of general medicine, and relieved by some means or other if the patient is to be permanently cured. Local treatment alone is for most of such cases inadequate. This idea is not put forth as utopian, but simply that we may endeavor to conduct the treatment in these rebellious cases on other lines than has been customary heretofore. This in my opinion is most important, and I do not hesitate to make the remark that many authors of works on cutaneous diseases do not lay sufficient stress upon this aspect of treatment. General medicine in its relation to the skin fails to receive the attention it deserves. It is surprising how comparatively little expression of thought and practical

application this whole subject has received,—how comparatively few articles have been published dealing mainly with the general principle here put forth.

I may be permitted here to digress for a moment to bring forward a few notable exceptions to the statement just made. I would briefly refer to the sound and admirable position taken by such distinguished clinicians as Stephen MacKenzie, Hilton Fagge, Tilbury Fox, Pye Smith, Clifford Allbut, McCall Anderson, Bryon Bramwell, Osler, and Bulkley, all of whom have done much to bring cutaneous diseases into close relation with the principles governing general medicine. Personally, each decade, each year, I am more and more impressed with the truth of this general principle and of its practical application. It naturally follows that only by taking into consideration internal states of the economy, of whatever nature and variety these may be, can such cases be satisfactorily and successfully relieved of the cutaneous symptoms.

It may be remarked by some one, that physicians, experienced and skilled, are ever looking for internal factors, but generally fail to find them. The answer to this query would be that to the casual observer and even to many otherwise skilled clinicians the skin is regarded mainly as a covering of the body and not as it should be in disease as an integral part of the same, responding often readily and quickly to the most varied influences arising within the economy. The cutaneous lesions, whether of one or another disease, are often regarded as the sole existent disease, the only deranged condition worthy of treatment; such observers generally or frequently hold the view that their professional duty has been properly discharged by prescribing merely ointments or lotions and the like, with possibly such instructions as “apply this twice daily and see me again in a few days.” Perhaps, moreover, some such general and vague advice as do not indulge in any food that is “sweet, sour or strong” will be vouchsafed, and at that point advice ceases. This train of thought and expression may appear trite and uncalled for, but, as my experience in meeting new patients shows, it is nevertheless a true statement as applied to some cases. It is a deplorable commentary on the subject that any such instances can be adduced, and it is precisely for such and similar reasons that charlatans and the like have so long flourished, and still do so, in dermatology as in no other branch of medicine.

To return from this digression: thus it would be noted that it not infrequently happens to patients that no serious thought is system-

atically bestowed upon the state of their general economy and functional or organic life, even, it may be, where obvious derangement of one kind or another exists and may be demonstrated. Now, functionally deranged organs and systems, are in some measure very often at fault, and directly or indirectly play a conspicuous rôle in the production of inflammatory cutaneous lesions of varied forms. This general and broad statement is made, but no proof whatsoever is given of its genuineness or truth; is not this, therefore, merely an ætiological view based on theory rather than solid foundation? By no means is it theory, for on the contrary close clinical observation, the noting in a series of cases the more or less disturbed state of certain organs or systems, especially in connection with the two most important and at the same time most abused systems of man in the production of certain inflammatory cutaneous diseases, the digestive and the nervous, shows it frequently to be plainly cause and effect. It may be admitted here that to the casual or hurried observer, who perhaps has no time or inclination to investigate or to bring to bear the well known principles of general pathology and medicine upon the study of his chronic and rebellious cases, and who sees nothing of special importance or interest beyond the cutaneous lesions, deep-seated ætiological factors are frequently obscure or altogether elusive. In short, they are not recognized, or, if detected, their importance in the production of disease of the skin is either doubted or not at all believed in. Failure to see cause and effect results. I am of opinion, however, that if the well-trained, observant and inquiring physician will, with attention, investigate most of the class of cases under discussion there will be found sooner or later existing morbid states affecting one part or another of the general internal economy upon which the cutaneous disease will be found to be directly or indirectly dependent. The remedying of these states is of course another question.

I would contend, moreover, that most of these cases cannot be satisfactorily or permanently cured until the pathological causes are modified or relieved. That we are in all cases able to ascertain, to detect these causes, I am, on the other hand, far from maintaining. On the contrary we are compelled to admit that some are so abstruse or obscure in origin, location and nature as to be beyond ordinary scouting and detection. What has frequently impressed itself upon my mind in dealing with these difficult cases is in the beginning of the investigation the obscurity of the cause or causes; and, moreover, in particular, that such seemingly or actually slight organic

or functional lesions or disorder could possibly give rise to the cutaneous disorder. But after all this is not really so remarkable when we stop to consider how, for example, a slight persistent lesion in the urethral tract may give rise to and keep up a rebellious acne or some other cutaneous disease. It is surprising how often in severe chronic forms of disease, say eczema, obvious states of derangement are unsuspected, not investigated, or overlooked by even trained physicians. A striking example comes to mind at the moment, that of a middle-aged man, a South American, suffering with chronic, almost universal, inveterate psoriasis of the most severe inflammatory type. He was in a private hospital in Europe and literally a helpless subject. I was asked to see him and if possible to make suggestions as to further treatment. The disease for many years had defied the skill of a number of physicians in whose hands he had successively been. He informed me that his several physicians had prescribed chiefly local remedies, and that no one had inquired much or had investigated his internal economy, the opinion generally being that his internal physical condition, whatever that might prove to be, could have little or nothing to do with the causation or production of the cutaneous disease, and that therefore it did not require special attention. Briefly, upon investigation, it was noted that functional life of the alimentary tract and metabolism in general had long been and were much deranged. In my opinion, in this case, there was no likelihood of improvement in the skin until certain underlying morbid states of the several deranged systems were corrected. Whether this was possible or not, however, one could not say. I may add, here, what is frequently observed in some cases, that so intent was the mind of the patient upon the distressing and obnoxious cutaneous disease, and so eager was he to be relieved of it, that he was not fully aware of the existence, made less of the importance of the insidious and unrecognized chronic derangement of the alimentary tract and nervous system; indeed he went so far as to make the remark that other than the disease of the skin he considered himself in fair health. I would like to remark here in passing that the statements of patients in general as to their condition of internal health are in most instances distinctly unreliable. When questioned they desire and mean to tell all they know and the truth, but ignorance of symptoms and their meaning mislead them in their views, and it is so common to hear persons say "There is nothing wrong with my general or internal health, or with any special organs within my body," or

“My health is perfect except as to my skin.” Such statements should never be accepted without some doubt, nor without investigation. Patients are generally wrong in their conclusions on such points.

These several observations, including possibly the case of psoriasis referred to as an illustration, will serve, I trust, to accentuate the importance of treating the patient in these rebellious cases rather than the skin alone. In active practice, it is unquestionably much easier to prescribe one local remedy, one formula after another, than to undertake the thorough and systematic investigation of the general economy, but in obstinate, persistent or recurring cases (in particular, eczema, psoriasis, acne, and some other similar chronic forms of disease), it generally repays for the time and trouble, and it really must be done if we are to perform our whole professional duty—if we expect to cure.

Now, here, it might properly be asked, what are these so-called internal disorders, or diseased states of the economy or of certain organs or systems that may prove to be such active and potent ætiological factors in causing or calling forth the cutaneous disease? If really so important as stated, why are they not more obvious or plainly demonstrable to the physician? Why are they not generally recognized? In reply, it may be said they often are so to him who brings to bear all his powers of investigation and observation based on the principles governing general medicine. And here, in making this statement, it is my earnest desire entirely to disclaim for myself any special knowledge or skill in either diagnosis or method of investigation.

The remarks thus far made on the whole subject have been intentionally broad, in order to permit of covering a wide field. They are intended to direct attention to, and, in a small measure, to illustrate a point of view which needs more careful and elaborate study on the part of dermatologists and physicians in general. The general principle enunciated as underlying the cause and production of certain, if not of many, of these deplorably chronic and persistent cases is, it is believed, correct. It is built upon the experience of many observers other than my own experience.

As to a consideration of the drugs or formulæ that may be employed it would be foreign or superfluous to the cardinal idea beneath this paper to enumerate them. It is far from my thought in any way to deal with or to discuss drugs, or other forms of therapy; suffice it to say that the various therapeutic agents em-

ployed in general medicine, and known well to all, are to be called upon to meet the demands of each case as presented. The physician who attempts to treat diseases of the skin, whether acute or chronic, who is unable for any reason to comprehend the appreciation of the principles of general medicine to the skin is entirely unfitted to prescribe at all. He who through lack of training or otherwise cannot see causes beyond or beneath the skin would do well to refrain altogether from prescribing internally, lest positive harm be done by the injudicious use of drugs. The indiscriminate administration of arsenic or other potent drugs is to be deplored.

In this connection the briefest reference may be made to the importance and value in the general treatment to a proper diet, suitable to the case, to food and to drink, concerning which far too little attention has heretofore been given.

In putting forth these ideas I am at the same time far from being unmindful of the value, in most if not all instances, of the proper local care of the skin, including the use of water, soap, unguents, and the many combinations of different remedies well known to all dermatologists. I am, however, not touching upon the subject of local treatment. The remarks that have been made must not be construed as being in any sense derogatory to the importance of local therapeutics in general, but I would say that local treatment to the exclusion of the well being and care of the patient's internal economy has for many years past occupied too much attention. This neglect of inquiry and lack of investigation and treatment of the internal economy where indicated, of the patient may often be observed in a striking manner in dispensary practice the world over. Patients are, as a rule, treated for the cutaneous lesions only, as though no possible relation existed between the skin and the rest of the economy. This is all wrong. I conceive it to be the professional duty of the dermatologist to advise as to the deranged conditions of the body which possibly may have a bearing upon the diseased integument; often, I believe, this is not done adequately. The mode of life, habits, the use of tobacco, wine, spirits, beer, and the like also in some cases require attention on the part of the medical adviser. Such questions are in many cases of distinct importance.

The remarks that have been made are intended to be suggestive rather than convincing. I am well aware that there exist many physicians of large experience who maintain just the opposite of these views. These are put forth for the purpose of directing atten-

tion to what is believed to be the correct and only satisfactory principle of treating the class of cases in mind. It need scarcely be said that the conclusions reached are the result of clinical observation and experience, not with a few, but with many cases extending over long periods, and especially with intelligent patients, from whom I have learned much in connection with the train of thought put forth. The opinion is promulgated that if physicians who have to treat these chronic, rebellious cases would keep in mind at least the possibility of the soundness of these views, and would take more time to inquire into possible faulty functional or other derangements of the various organs and systems of the general economy, and devote possibly less attention to the clinical symptomatology of the skin itself, attractive as that side of the question is, there would result many more cures of the so-called chronic and incurable inflammatory diseases.

References to cases, to diseases, to the special derangements of functional or organic life, and to the symptoms of the internal disorders of the present have been purposely passed over. To enter upon these topics in detail would require much time. Moreover, it would be superfluous to dwell upon an enumeration or description of well known pathological or other conditions characterizing internal disorders of one kind or another that might bear upon cutaneous disease. At the same time the principles of cause and effect to which attention has been invited stand upon, I believe, fixed ground and the true relations of the general economy, as the skin, I trust, will ere long be more fully and generally recognized by the profession at large than is now the case.

If I have been able to gain a hearing and should be at all instrumental in inducing thought on the part of the profession to be bestowed on the subject, and to investigate the question so imperfectly brought forward, I shall feel gratified.

A NODULAR, TERMINATING IN A RING ERUPTION.
(GRANULOMA ANNULARE).

BY GROVER W. WENDE, M. D., Buffalo.

THE subject of this report, Mr. F. S., is a large, heavy man, a policeman, forty-nine years of age, married, with one living, healthy child, two other children having died in infancy; is one of seven living brothers, whose combined weight is approximately a ton, all the others being healthy and well. Four brothers and sisters died from causes apparently without relation to the disease now described. His mother died in childbirth, his father from heart disease, at the age of fifty-nine. The patient's previous history included the usual diseases of childhood; he was subject to a digestive disturbance, characterized by eructations, during the preceding fifteen years, and, in 1906, experienced an arthritic attack, called rheumatism, which lasted several months and was immediately followed by the first outbreak of the skin eruption which becomes the subject of this paper. He denies all history of syphilis, although his present skin eruption was diagnosed and treated as such for six weeks preceding my first examination, on August 1, 1908.

The earliest skin eruption, appearing during the subsidence of the arthritic trouble, nearly two years ago, developed upon the nape of the neck in the form of flat, red-white nodules, without itching or burning. These nodules gradually increased in number and size; in two or three months they had extended to the hair-line back of the ears and to the front of the neck. The inception of some of the lesions was abrupt, somewhat resembling urticaria. The older ones finally formed rings or segments of rings. At first, the patient consulted a physician who diagnosed the case as ring-worm, and treated it with an ointment composed of sulphur and ichthyol. At the expiration of two weeks the lesions, possibly under the influence of the ointment, disappeared for a month, then began to return on the nape of the neck, slowly developing and spreading. He again employed the treatment above mentioned, but without beneficial effect. Some of the lesions would spontaneously

* Read before the 33d Annual Meeting of the American Dermatological Association, Philadelphia, June 3-5, 1909.

disappear at any stage of development previous to the formation of rings, especially when isolated. If a number existed in close relation to each other they might run together and form a gyrate border. The patient stated that a portion of the scalloped lesions resulted from single ones, instead of constituting a combination of lesions. When he first came under my observation he appeared in fairly good health. An examination of his chest revealed nothing abnormal. There were variable pains and some tenderness in many joints, especially those of the shoulders, which kept shifting, and entirely disappeared in the course of four weeks.

Examination of the urine showed: sp. gr., 1025; indican, somewhat increased; serum albumin, fair trace; a few hyaline and finely granular casts.

The skin lesions were distributed over the entire cervical region, being more numerous on the nape near the hair-line, the two largest occupying the mastoid region. There was one linear lesion on the mandibular region, four on the right wrist, three on the left, one on the back of the right index finger, and one over the right thenar eminence.

Nodules, varying little in size, appearing as firm, deep-seated, circumscribed, whitish or pinkish elevations, were intermingled with the more numerous ring-shaped lesions. The nodules, after attaining a certain size, cleared at the center, while extending at the margin, thus developing into ring-shaped lesions with a depressed center and an outer edge well defined, the border measuring about a twelfth of an inch in width and from a sixteenth to an eighth of an inch in height.

These ring-shaped lesions presented considerable variation in form, evolution, involution and grouping, being at different times annular, partly annular, crescentic, linear and, where fused, gyrate. In color, a few were pale and semi-translucent; the majority were of varying degrees of red. Unlike many of the smaller nodular lesions, which were frequently evanescent, the ring forms were remarkably persistent and chronic in their course. As already stated, all forms of the lesions were entirely free from pain, tenderness or other subjective disturbance.

On October 1, 1908, a piece of skin was removed, including a section of a crescentic lesion and a cotton-collodion dressing applied. Five days later, upon the removal of the dressing, the wound was found to be healed, and the remaining portion of the crescentic lesion was shrunken and flattened. To the remaining lesions an

application of ointment composed of sulphur and ichthyol was made, followed in five days by a marked improvement in all, and, within two weeks, by their complete disappearance. The body remained clear for about a month, after which the patient was confined to his home for three days with an acute coryza and pains resembling the former attack of rheumatism. Within a week following the attack occurred a fresh outbreak, which was more severe than any of the former and included new locations,—the upper part of the chest and back. When examined, there were fifteen deep-seated nodules, whitish in appearance and faintly resembling urticaria. They appeared suddenly and without itching or burning; five days later they had reached the size of a large split pea, were flatter and slightly depressed in the center, the border presenting a perfect ring with a red outer margin, the inner portion being pale red and somewhat depressed. A week later the color of most of the lesions had also become red, the remainder being bluish. Some had disappeared, leaving traces of pigmentation. About one-half the original number, persisted as ring formations for several months, resembling those seen at the time of the first examination.

ÆTIOLOGY. The history and facts of the case suggest a possible ætiological relationship of the skin eruption to a disturbance of metabolism. A plausible hypothesis would be that some toxic substance in elimination was responsible for the skin changes. Thus the hyper-nutrition of the patient and also of his brothers, the marked plethora, the attacks of so-called rheumatism preceding the outbreak of the skin lesions, the excessive deposits of uric acid crystals in the urine, etc., might make such a relationship possible.

MICROSCOPICAL EXAMINATION. A portion of a ring lesion removed from the nape of the neck, including adjacent normal skin, was fixed in formalin and imbedded in paraffin. A series of sections was stained with hæmatoxylin and eosin. The epidermis over the entire lesion appeared unchanged. The stratum corneum and the granular layer were normal. In the upper part of the corium, at the margin, were found isolated infiltrations; these were groups of cells alongside the hair follicles and in close relation to the blood vessels. There were also infiltrations of cells apparently independent of the other structures, the cells lying in clumps between separated connective tissue fibres. Toward the center of the lesion the connective tissue adjacent to the inter-papillary processes showed a marked change. The cells constituting this infiltration were spindle-shaped, as opposed to the areas of round cell infiltration. The

groups of round cell infiltration were more numerous in the lower portion of the corium, the principal change being in the deeper layer. In certain portions, collagen and elastin stained normally, although in localized areas, where the infiltration was most marked, there was evidence of broken-up elastin and collagen fibres. With polychrome-methylene blue, most of the round cells took a deep blue, homogeneous stain, both the nucleus and protoplasm staining intensely. The areas of round cell infiltration were clearly defined from the zone immediately beneath the epidermis, the spindle-cell infiltration, mentioned above, taking the blue very indistinctly. Under the high power the principal round cell form was found regular in outline, occasionally oval, having a round nucleus containing a large amount of chromatin, with a narrow band of protoplasm, resembling lymphocytes. The cells which constituted the tumor seemed to be more numerous and closely packed along the sweat ducts and hair shafts, as well as the blood-vessels. The cells of the isolated clumps appeared to be of the same type. In the deeper portion of the sub-papillary layer of the corium mast cells were frequently seen. Where the infiltration was most dense, giant cells were occasionally observed. The infiltration apparently commenced in the sub-papillary layer of the corium; at the margins of the lesions the super-papillary layer was free from infiltration. In some of the sections were structures staining deeply with hæmatoxylin. At first glance they presented the appearance of a fungus. They were located in the areas of the greatest round cell infiltration and occasionally about the apices of the papillæ. Sometimes these mycelial-like structures were arranged in a radiating fashion, presenting an appearance suggesting the ray-fungus. All methods adopted to stain them with differential stains proved futile and attempts to cultivate fungi from the lesions were negative. After careful consideration it appeared that they were altered collagen fibrils, or, in some instances, perhaps metamorphosed connective tissue nuclei. Their appearance at first glance, however, was so striking that we could not refrain from mentioning it.

Three guinea pigs were inoculated beneath the skin from the tissue of a lesion taken from the neck of the patient, resulting in no symptoms and no loss of weight. The animals were killed six weeks later and the autopsy showed no signs of the inoculation—no enlarged glands near the site, and the organs were entirely normal. Bacteriological examination of tissue taken from node and ring lesions and inoculated upon the various culture media, showed that

seven inoculations remained sterile, five gave evidence of a staphylococcal growth, which was undoubtedly a contamination. Several drops of a one per cent. solution of tuberculin were introduced into both eyes at two different times, at an interval of three days. No reaction followed.

CLINICAL SUMMARY. To summarize the clinical appearance of this case: The lesions began as rapidly-developing, dome-shaped nodules simulating those of urticaria. At first they developed quite rapidly without subjective sensations; some would involute early and others, about one-third of the nodes, develop into rings, which extended peripherally and varied in diameter from one-half inch to three inches. From the center of the larger lesions the activity disappeared, the skin becoming normal, and the border showing a comparative uniformity in width, with a redness of the advancing edge. The unequal evolutions left figures of various kinds without scarring of the skin, and with slight pigmentation. The patient had apparently separate attacks, although they seemed to merge into one another.

DIAGNOSIS. Because of the unusual clinical picture, difficulty is experienced, in the present instance, in reaching a conclusion as to the exact nature of the disease. The nearest resemblance is shown in cases drawn from the literature, as well as from his own practice, and reported in the form of a most admirable monograph, (*British Journal of Dermatology*, July, 1908, p. 213), by Dr. E. Graham Little as granuloma annulare. This includes two cases, occurring in the United States, brought to the notice of Dr. Little by Drs. Hyde, Montgomery and Ormsby. Dr. Little kindly examined a photograph of the present case and expressed the opinion that it might be one of granuloma annulare, although the multiplicity of lesions was opposed to the diagnosis. Nevertheless, he had seen a case showing as many. He believed that the diagnosis must depend upon the microscopical findings, *i. e.*, the exact character of the cells constituting the infiltration, which, however, from the slides sent him, he was unable to establish.

The histological findings of the case under consideration show a striking similarity to the cases reported by Dr. Little. In his monograph, he recognizes a marked variation in the different cases, although, in the summary, he says: "In all we have to do with a deep hypodermic inflammation gradually spreading towards the surface and situated around the vessels; the cell masses observed in all the cases have much the same character." The cells found were

PLATE XXXIV—To Illustrate Article by Dr. Grover W. Wende.



FIG. 1



FIG. 2

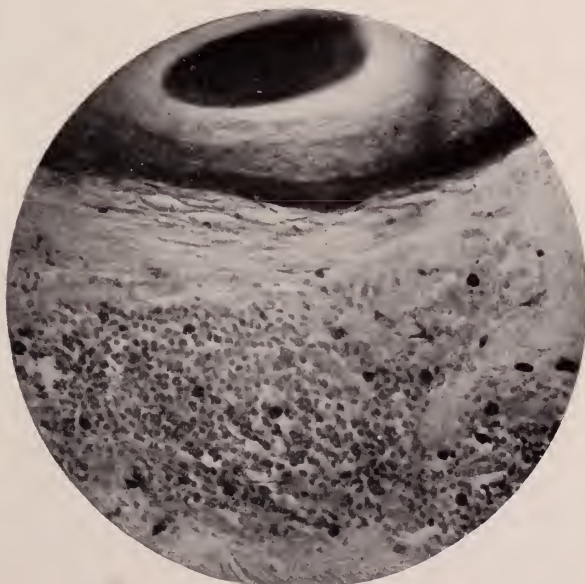


FIG. 3

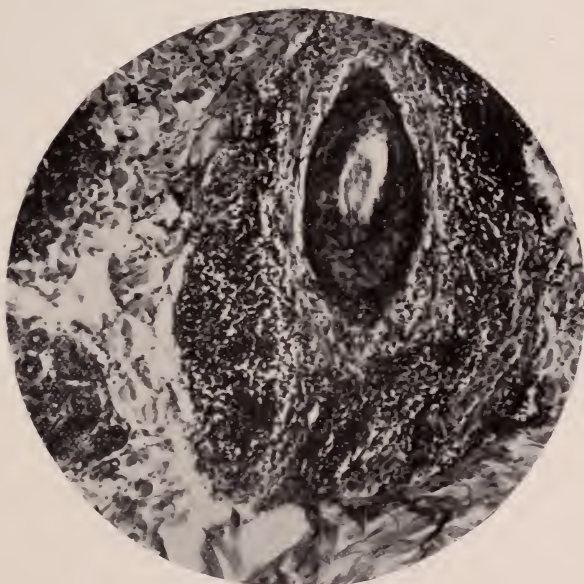


FIG. 4

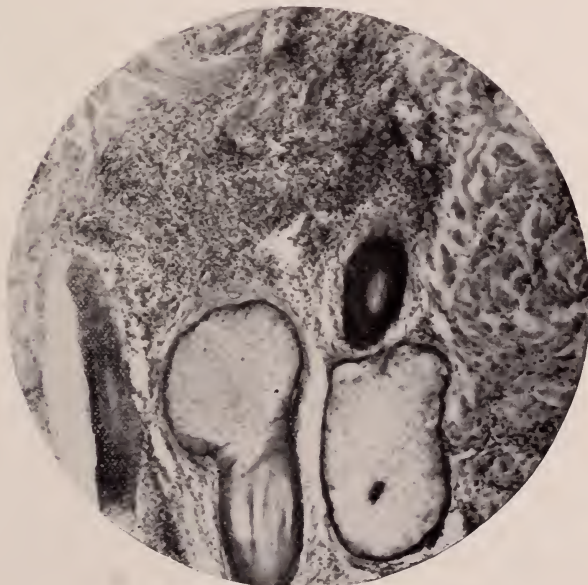


FIG. 5

mononuclear, connective tissue and epitheloid, occasionally mast cells in unusual numbers and, in a few instances, giant cells, strongly resembling the histological findings in my own case.

In addition to the results summed up by Dr. Little, it was found that, in the case here considered, there were more cells of the fixed connective tissue type. The presence of infiltration in the upper part of the corium, near the epidermis, is unusual in the experience of Dr. Little, in cases of *granuloma annulare*. This, however, was found in our own case, although the inceptive cell infiltration was in the hypoderm, and the extent of reaction there produced constituted the principal feature.

The histological resemblances in so many chronic non-suppurating diseases of the skin that must be considered in making the diagnosis of the type of cells which result from the various pathological cellular infiltrations of the corium, are so closely allied that we must depend in this case upon the clinical picture of its nodes and annular lesions to permit the assumption of its proper classification with *granuloma annulare*. The condition has been described by means of a number of lesions, but most frequently as *granuloma annulare*, which it most closely resembles. This condition, however, although commonly termed *granuloma*, has little in common with the general classification of *granulomata*; it lacks the basis of the histological structure which may be said to be the plasma cell. In spite of the presence of giant cells there was no tuberculosis structure found; therefore such presumption could be excluded. In the other infective *granulomata* there are specific differences in detail which generally enables them to be differentiated by the microscope. There is nothing in common in the case here reported with the malignant cellular infiltration of the *sarcomata*.

DESCRIPTION OF PLATES.

1. Illustrating the annular, crescentic and gyrate character of the eruption.
2. Showing entire lesion; the lower portion of the corium feebly stained, is due to the breaking up of collagen; the infiltration extends to close proximity with the epidermis; longitudinal sections of hair follicle and blood-vessel showing surrounding infiltration.
3. Showing the relation of the number of mast cells to the round cell infiltration.
4. Cross section of hair follicle, surrounded by pronounced infiltration.
5. Sweat coils and ducts with infiltration.

OSTEOPATHIES OF QUATERNARY SYPHILIS
(GAUCHER).*

A REPORT OF THE EXAMINATION OF FORTY-SIX
ORTHOPÆDIC CASES FOR EVIDENCES OF
INHERITED SYPHILIS.

By JAMES M. WINFIELD, M. D., Brooklyn.

Professor of Diseases of the Skin, Long Island College Hospital.

IN a paper read before the Sixth International Dermatological Congress, Professor Gaucher claimed that "heredo-syphilis, either directly or in the second generation, was an important factor in the production of suppurative bone and joint conditions in children" (hip and spine disease). He inferred that many of these cases were "directly dependent on quaternary heredo-syphilis or the inherited taint was a capital predisposing cause for the tuberculous lesion." In an earlier paper (Suppurative Osteitis and Osteoarthritis of Heredo-Syphilis. *Annal. des Mal. Ven.* T. II, Aug., 1907). Professor Gaucher states that the bone lesions of tertiary syphilis frequently resemble tuberculous osteitis, making the differentiation because some of the cases yielded to specific treatment.

In the paper read before the Congress, he attempted to show that many of the cases of apparently tuberculous osteitis of children were examples of quaternary syphilis, basing his conclusions alone upon the somatic evidences of syphilis, such as saddle-nose, Olympic foreheads, dental and palatal deformities and other osseous dystrophies, but he did not consider a case positively syphilitic unless there were two or more of these dystrophies present.

These views have been held to a certain extent by some of the orthopædic surgeons. Although they do not consider the osteitis to be a direct manifestation of syphilis, but rather that syphilis by inheritance is often the means of lowering the general resistance of the individual, thereby making him more susceptible to the tuberculous infection.

Wishing to verify these claims, I obtained permission from

* Read before the 33d Annual Meeting of the American Dermatological Association, Philadelphia, June 3-5, 1909.

the Orthopædic Division of the Kings County Hospital to examine the cases in this ward.

Forty-six cases were examined, they were divided into two lots, the first lot of seventeen were simply examined for the external signs of inherited syphilis, and the second lot of twenty-nine in addition to the external examination, were subjected to the von Pirquet tuberculin test and the Noguchi modification of the Wassermann test for syphilis.

The ages of the patients ranged from six months to fourteen years. All were born in the United States, twelve were of American parentage, eleven Italian, ten German, eight Polish and Russian Hebrew, three Scandinavian and three were foundlings.

Nine, of the first lot of seventeen, were cases of Pott's disease. Three of these had malformed heads (Olympic), three had typical Hutchinson's teeth, and one had both a misshapen head and pegged teeth.

The remaining eight of the seventeen were suffering from hip disease, three of these had dental stigmata and two had malformed heads.

The total out of the first lot of seventeen that presented suspicious stigmata was twelve, but according to the dictum of Gaucher only one of the twelve, the case of dorsal Pott's that had two dystrophies, Hutchinson's teeth and a malformed head could be considered syphilitic.

Ten of the second lot of twenty-nine were suffering from a diseased spine, and eleven had disease of the hip, three had disease of both hip and spine, two had suppurating sinuses of the feet and ankles, and two had had abscesses of the wrists and hands.

All of the patients were tested for tuberculosis with the cutaneous method of von Pirquet, and all but one reacted positively, some reacting more markedly than others; the greatest reaction was obtained in a child, who had all of the characteristic signs of inherited syphilis, and the family history obtained from the mother left no doubt but that the child was a victim of the inherited taint; this case also gave a positive Noguchi-Wassermann reaction.

Ten out of the twenty-nine had some stigmata suggestive of syphilis; such as Hutchinson's teeth, high-arched palates, saddle noses, overhanging foreheads and other malformations of the head; sixteen had no suggestive signs and four left the hospital before the examination was completed.

Four of the cases with external signs suggestive of inherited

syphilis and six that were absolutely free from all stigmata reacted positively to the Noguchi-Wassermann test, making a total of ten positive Wassermann tests out of the twenty-nine cases examined, about one-third.

The most marked reaction was in patients who had two or more dystrophies, the two with multiple abscesses of the wrist and hand and one of those with sinuses of the foot. Three with a positive Wassermann reacted feebly to the von Pirquet, but the remaining seven gave a very marked reaction.

One out of the twenty-nine did not react to either test; it was a baby about six months old, who undoubtedly was suffering from syphilis, and the probable reason why it was Wassermann negative was because the patient had been taking anti-syphilitic remedies.

Six of the patients with suggestive somatic signs, and who were negative to the Noguchi-Wassermann test had been treated for syphilis.

To prevent the possibility of either test modifying the other, care was taken to make the von Pirquet and Wassermann tests at entirely different times and at long intervening intervals.

CONCLUSION. Since all but one of the cases reacted positively to the von Pirquet tuberculin test it is strong presumptive evidence that all of the cases examined were suffering from tuberculosis. This is especially true, if the tuberculin tests are of value and if the Wassermann test is reliable; it brings up the question, can tuberculosis and syphilis exist simultaneously in the same individual? And is it possible to get a positive Wassermann in all cases of inherited syphilis, that have not been treated for the disease?

From the study of these reported cases it would seem that syphilis might be an important factor in the production of many of the cases of suppurating osteitis of childhood; perhaps it would be questionable to claim that all cases of osteitis with somatic signs of inherited syphilis were the direct manifestation of quaternary syphilis, but one would be justified in assuming that in many of these cases, the underlying aetiological factor was syphilis, and that the inherited taint rendered the resistance of the individual so low as to make him an easy victim to tuberculosis.

This report aids in establishing the value of the Wassermann test, and it proves that the Noguchi modification is as reliable as the original.

While the reports regarding the value of the tuberculin tests

seem to be reliable, there still appears to be some doubt as to its general efficacy as a diagnostic measure; if a reaction was obtained only in cases known to be tuberculous, and if it always failed in individuals who never had had any known tuberculous process, one might place more reliance upon its diagnostic usefulness.

The study of these cases emphasizes the fact that bone syphilis in the young is difficult to differentiate from tuberculosis of the bones, and it would seem as though all cases of hip and spine diseases should be subjected to the test for syphilis before treatment was instituted.

In spite of the claims of Prof. Gaucher and my substantiating findings, one should not pronounce an orthopædic case to be of syphilitic origin simply because certain dystrophies happened to be present; it is possible for stigmata from some other inherited taint to simulate those of syphilis.

It is also a mistake to consider a case of suppurating bone disease specific, simply because it improves and often recovers after the administration of mercury and the iodides.

Mercury is a powerful tonic in any dyscrasia, and when it is combined with proper hygiene and orthopædic rest, it is not remarkable that many cases of tuberculous osteitis recovers, and the recovery is not at all significant that the case was of syphilitic origin.

The paper would not be complete if I did not take this occasion to thank the Orthopædic Department of the Kings County Hospital for allowing me to make these studies, and I am especially indebted to Dr. J. C. Rushmore for furnishing me with the histories and the report of the results of the von Pirquet test.

I am also indebted to my clinical assistant, Dr. Alfred Potter, for his valuable aid in making the Noguchi-Wassermann examinations.

SOCIETY TRANSACTIONS.

NEW YORK DERMATOLOGICAL SOCIETY

Regular Meeting, April 23, 1909.

DR. WHITEHOUSE, in the Chair.

Case for Diagnosis. Presented by DR. MORROW.

The patient had a very peculiar discoloration of the nails, a little more marked on the nails of the feet than on the hands. The morbid process appears in the shape of a crescentic indentation at the side of the nail. The most important feature seems to be the peculiar yellowish discoloration, which does not show so plainly at night as in daylight. The man has some heart trouble, and the condition may be due to a lack of peripheral nutrition.

Case for Diagnosis. Presented by DR. ROBINSON.

The patient was first seen ten days ago, and the condition began about the first of January. He has been taking iodide internally, but the condition has not changed much since his first appearance, except that there is not quite so much swelling. Some scrapings have been taken for examination, but no report has yet been made, and the diagnosis has not yet been determined. The man is an auctioneer. The tumor condition was on the right side of face, extending from ear to clavicle—a phlepumous-like mass, firm, non-fluctuating, and with a small fistulous-like opening in centre. The peripheral area was not sharply limited and was beset with numerous isolated pea- to bean-sized tubercles, apparently in lymph nodes. The diagnosis was between sarcoma of the parotid region, actinomycosis and a growth due to pyogenic organisms, especially staphylococci.

DR. KLOTZ said that it looked like a malignant affection starting from the parotids.

DR. ROBINSON said that he had taken several slides but had found no evidence of actinomycosis. It may be a case of sarcoma. He would report on it at the next meeting.

Specific Lesion of the Face Simulating Lupus Erythematosus. Presented by DR. MORROW.

The eruption had been present for seven months. It was probably specific in character and the most interesting feature was its remarkable similitude to lupus. The history of the case was also somewhat unusual.

The woman had a similar eruption some months ago, which was cured under specific treatment. She has had mucus patches, and has also had one miscarriage.

DR. DADE expressed doubts as to its being specific, and thought it was a case of erythematous lupus.

DRS. BRONSON, FOX and ROBINSON thought it was specific.

DR. MORROW said that at first glance he had thought it a case of erythematous lupus, but on more minute examination of the circinate lesions,—the infiltration around the border being marked,—in connection with a clear history of patches in the mouth, specific manifestations elsewhere on the body which had disappeared under treatment, and of a similar eruption on the face which she says occurred a year ago and disappeared under specific treatment, and the additional fact that she has had a miscarriage which was attributed to syphilis,—there seems to be little question as to the specific nature of the trouble. Probably Dr. T—to whom the case has been referred for treatment will be able to clear up the diagnosis in a few weeks.

Bullous Lesions of the Hands and Mouth with Erythematous and Purpuric Lesions of the Extremities. Presented by DR. FORDYCE.

This patient had been presented at two previous meetings with bullous lesions of the oral cavity and hands. In the last week she developed an erythema multiforme on the upper extremities together with erythematous and purpuric lesions on the lower extremities. Shortly after the appearance of the erythematous lesions on the arms, they became the sites of bullæ. She also developed numerous bullæ on normal portions of the skin.

DR. WINFIELD said that he would change his former diagnosis of bullous iodo-dermatitis to pemphigus.

DR. LUSTGARTEN said that he considered the case a chronic malignant pemphigus at the last meeting, and is now confirmed of his opinion.

DR. FOX said that he was inclined to regard it as a case of pemphigus, despite the fact that bullæ are always thought to spring from a healthy skin.

DR. FORDYCE said the case was interesting in that it showed that if it was pemphigus, we must revise our clinical conception of that disease. In his opinion, it was an eruption due to some unknown toxic cause and illustrated the fact that transitional forms of eruption were common in the erythema group of skin diseases. It was impossible in his opinion to draw any hard and fast lines between certain forms of erythema multiforme, purpura and some types of bullous eruptions.

DR. FOX said it seemed to be a case of what Dr. Duhring would call the bullous form of multiform erythema.

DR. ROBINSON said that it was not infrequent to see multiform erythema with purpura.

DR. WINFIELD said that recently a case was reported in the Journal which began as erythema multiforme and later developed into pemphigus. The first attack was acute, presumably erythema multiforme bullosa.

DR. JOHNSTON said there could not be much doubt about the diagnosis of pemphigus. There was enough evidence now to establish that definitely in the deterioration in the patient's general health during the past month.

Case for Diagnosis. Presented by DR. KINGSBURY.

The patient was a married man twenty-five years of age. He was rather muscular and was apparently in good general health. Five years ago sores appeared on his lips and later on his nose. The man was under Dr. Kingsbury's observation for several months about two years ago. He then had thick, scaly, reddish lesions on lips, nose, ears, and back. The lips were considerably thickened and crusted, and there were a number of white patches on the mucous membrane. The man was in the habit of smoking about ten cigarettes a day. Although the condition was regarded as lupus erythematosus the patient was kept on mixed treatment for over seven weeks, but there was no appreciable change in any of the lesions. Later, they improved somewhat with local applications. The patient, who lives at a distance from the city, then discontinued treatment, and was not seen again until now. He states that he has used various ointments, and about one year ago received three X-ray exposures, on lips. At present he has no lesions on back or ears, and there is no scarring. On the bridge of the nose there is a cicatrix about three-quarters of an inch in diameter, and there are numerous scars on both lips. These latter seem to be deeper than the scars that generally follow the lesions of erythematous lupus.

DR. LUSTGARTEN said that he hesitated between the diagnosis of lupus erythematosus and a form of tuberculosis. The tendency to quick healing and extension might speak for a tuberculous focus. The case should be studied with tuberculin in order to see whether a reaction can be obtained. It did not seem to him to be a specific case.

Pigmentation of the Skin, with Keratosis of Palms and Soles. Presented by DR. FOX.

The case did not have much history. Nine years ago the patient had some kind of an eruption, probably an eczema, and was treated by several physicians, some of whom probably gave him arsenic. The condition is undoubtedly caused by arsenic, although there is no history of his having taken a large amount of this drug at any time. So far as can be learned he has not taken a large amount. Seven years ago he took "drops" for two years, and this condition came on two years after treatment. He is a fisherman by occupation.

DRS. FORDYCE, LUSTGARTEN and BRONSON accepted the diagnosis of arsenical pigmentation.

DR. ROBINSON agreed with the diagnosis, and told of a case recently seen in which the patient had not been taking the arsenic for more than three weeks, yet the pigmentation covered a large area on the neck.

DR. FOX said that he has seen patients who have taken arsenic for years without pigmentation, and in most cases where he has seen this condition the amount of arsenic administered was small. This patient does not seem able to give the same history twice—perhaps because he is a fisherman.

DR. TRIMBLE said that he had seen pigmentation occur in a very short time

after beginning the administration of small doses of arsenic. He recalled a case in which pigmentation was marked on the forearms in a patient who had taken five minims of Fowler's solution t. i. d., for three weeks.

Fungating Bromide Eruption on the Face. Presented by DR. FORDYCE.

The patient presented several tuberous lesions of the face which varied in size from a split pea to an inch in diameter and projected half an inch above the skin level. They were typical bromide lesions; the diagnosis could easily have been made without interrogating the patient. He stated, however, that he had been addicted to the morphine habit and had taken bromide of potassium to control the symptoms when he stopped the use of morphine. He took the bromide about four months ago for five days. Within two or three weeks the lesions developed and they had persisted since then, but were now rapidly disappearing.

DR. MORROW said that it was a very typical case of this peculiar fungating form of bromism.

DR. LUSTGARTEN said that he would consider it a case of fungating bromoderma. This history seems very unreliable. He says he does not take morphine any more, but he makes a doped impression.

DR. FORDYCE said the use of morphine might have favored the development of the lesions by interfering with elimination.

Lupus or Syphilis? Presented by DR. FOX.

Dr. Fox said that he had presented this patient before, and she had also been presented before the Dermatological Section of the Academy, and there is a difference of opinion as to whether the disease is lupus or lues. The majority has agreed with the diagnosis of lupus, but some thought it specific, and a few suggested that it was a mixed condition. She has been under mixed treatment for some time; has had ten hypodermic injections of calomel, and has taken large doses of iodide without any apparent effect. When first seen the arm was treated with chrysarobin ointment, under rubber cloth, and it seemed to have a beneficial effect in removing the crusts and infiltration. Life in the hospital has improved her general condition, but the anti-syphilitic treatment has had no apparent effect. Some thought that the scars on the leg looked like syphilis, but Dr. Fox believes it to be a self-peeled lupus eruption. He has never had a case under his care which received more vigorous anti-syphilitic treatment, and he has rarely seen a case of syphilis which has not responded rapidly to even lighter treatment. The condition has now existed for eight years, beginning on the face. Dr. Fox considers it a case of tuberculosis of the skin of the lupus vulgaris variety.

DR. MORROW adhered to the opinion expressed when he first saw the case some months ago, that the lesions on the face are undoubtedly tuberculous in character. He did not think it possible that syphilis could produce that peculiar nibbled condition of the *alæ nasi*. He also still thinks that the lesions on the limbs are of specific character. We often make mistakes in assuming that a

lesion is not syphilitic simply because it does not yield to specific treatment. That is especially true of the later manifestations of syphilis. A year ago he had presented before the society a case in which there were small erythematous lesions of the skin, undoubtedly specific, which had been present more or less continuously for several years, the patient taking active specific treatment all the time; and at present he has a case of the same type under treatment, beginning as very minute lesions and gradually spreading. The case had been treated by Dr. Taylor for two or three years. The lesions had been carefully watched, and showed no appreciable involution, under very active treatment. Obstinance to treatment is especially characteristic of certain late manifestations of syphilis. In that respect they are like the para-syphilides, they do not yield to specific treatment; but the mere fact that they do not yield promptly is no contra-indication of the diagnosis. The clinical history and character of the eruption rather than the result of the treatment should form the basis of the diagnosis. Dr. Morrow said that he had never seen a lesion due to lupus such as this woman presented on her leg and on the forearm. He did not think that a few weeks of mercury exhausts the virtue of specific treatment. Whether as the result of that treatment or not, the lesions have certainly improved wonderfully. They have not yet cleared up, but they have improved. He still considers that the case is a combination of two diseases, lupus and syphilis.

DR. BRONSON said that it was certainly a most interesting and somewhat unusual case. While all would agree that the lesion on the face was lupus, there might be some doubt with regard to the lesions elsewhere. The distribution and the peculiarities of the cicatrices on the face were clearly characteristic of lupus. The serpiginous character of the lesions on the extremities of course suggested syphilis. He called attention to Hebra's observation that lupus of the extremities was commonly serpiginous and often suggested the possibility of inherited syphilis as a complicating factor. It was Dr. Bronson's opinion that in the present case the lesions were all due to lupus.

DR. LUSTGARTEN also thought that lupus would account for the entire condition. He would call it a serpiginous lupus.

DR. FORDYCE agreed with the diagnosis of lupus and he did not see the necessity of invoking another infection to explain the occurrence of the lesions on the extremities, especially with a negative Wassermann and a positive tuberculin reaction. He had observed the spontaneous disappearance of lupus lesions of the extremities, and would not rule out that infection for this reason.

DR. FOX said that his first impression was that the case was syphilis, then he made up his mind that it was lupus, and now after six months' study he has not been able to discover any syphilitic taint. The slight improvement has been in the falling of the crusts on the patches of the legs and arms, and is nothing more than the life in the hospital would produce. The serpiginous patches are surrounded by lightly adherent crusts. As Dr. Fordyce had said, lupus is known to frequently heal spontaneously. He could see no indication of syphilis in the case.

As for the remarks upon the treatment, he has always tried to impress upon students that there are no more brilliant results than can be obtained with iodide of potash or mercury, but they do no good to a patient who is dead or half dead. When a patient is in poor health you can push iodide or mercury, yet the lesions grow worse, the disease increases, and failure results. In all of these obstinate cases of syphilis, if the patient is first put in good physical condition, mercury or iodide will then cure it very quickly.

Cancer on the Leg. Presented by DR. ROBINSON.

This case was presented not on account of the difficulty of diagnosis,

but because it is a clinical type that is not often seen—carcinoma of the leg. The patient has had this condition for four years and yet there are no signs of ulceration. The lesion, about four inches long and two to three and a half wide was of discoid variety. The central part was depressed, and the surface made up of flat epithelial structure, outside this was a papillary area and the periphery part was elevated, firm and waxy.

Three Cases of Alopecia Areata in the Same Family. Presented by DR. KINGSBURY.

Nearly six years ago these same patients were shown at a meeting of the New York Society of Dermatology and Genito-Urinary Surgery, and the following notes are from a report of the meeting published in the *Medical Critic*, Nov., 1903.

"Dr. Kingsbury presented three cases of alopecia areata occurring in one family. The patients, a girl and two boys, were respectively sixteen, fourteen, and five years of age. Both the girl and the older boy had chorea, and the younger boy was said to be very nervous. They had formerly been treated by Dr. McCall Anderson, in Scotland. There were six other children in the family, but none of these had any disease of the scalp or nervous system."

The age of the patients at this time naturally suggests that the condition might have been one of so-called bald ringworm, but the original diagnosis is sustained by subsequent history. The girl has been under observation for over seven years. At present she has thick hair and there are no bald patches, but one year ago when she was twenty-one years of age she had typical lesions, and her scalp was also affected two years previous to this time. The scalp of the older boy is now in good condition, but he did not recover from the disease until he was over seventeen. The little fellow has had but indifferent treatment, and his scalp has been affected ever since the first appearance of the disease. He now has a bald patch about two inches in diameter at the back of his scalp near the right ear, and there are several smaller areas on the opposite side. He is somewhat undersized and rather anæmic, but is said to be in fairly good general health.

DR. ROBINSON said that he was aware that he did not agree with the majority of the members, but he still held to his opinion that alopecia areata can be nothing but parasitic; if the term is limited to those cases in which the lesion commencing as a small spot increases in size by peripheral extension giving rise to circular bald areas of varying size, sometimes reaching three or more inches in diameter. The process is a gradual one and unattended by objective signs of inflammation or atrophy of the connective tissues.

DR. LUSTGARTEN said that he was convinced of the parasitic nature of alopecia areata, and cases of this kind are confirmatory of that belief.

DR. FORDYCE said that in some cases he had observed alopecia areata develop on a scalp which had been affected with seborrhœic dermatitis. This suggested a parasitic origin for this type of alopecia. In other cases the lesions

developed on scalps which were absolutely devoid of scaling. Here we can only speculate regarding the causative factor.

DR. FOSTER inquired whether alopecia areata often attacked various members in a family.

DR. WHITEHOUSE replied that it was seldom seen in more than one member of a family.

DR. FORDYCE corroborated Dr. Whitehouse's remark.

DR. BRONSON said that White of Boston, and others had reported epidemics of alopecia areata.

DR. MORROW said that he had reported one case in which there seemed to be positive evidence of contagion. In a young man who had been under his care for alopecia areata, the condition became generalized and left him perfectly bald, and there was no hair anywhere on his body. On visiting home, his sister wore his cap, and some three months afterward she came to Dr. Morrow for treatment with characteristic patches over her scalp. She also lost almost all the hair on her body, but she ultimately recovered. The brother never did. These two instances in the same family seem to offer very positive evidence of contagion. We cannot ignore the fact that many cases are recorded as due to injuries of the nerve track. There does not, however, seem to be sufficient basis for the contention that it is a parasitic disease, although reported cases of epidemics of alopecia areata might seem to furnish presumptive proof of this view.

DR. WHITEHOUSE said that there are cases of epidemics and occasional instances where there are several cases in a family, but these are not common; they are isolated instances. In his experience the condition more commonly occurs alone.

DR. KINGSBURY said that his experience coincided with that of Dr. Whitehouse. This was the only instance that he had met where the condition occurred in several members of the same family.

DR. FOSTER said that he understood Dr. Morrow to lay some stress on the girl wearing her brother's cap, as offering evidence of contagion in the two cases. On what grounds did he account for that, if not on the basis of parasitic origin?

DR. MORROW, replying to Dr. Foster, said that while he did not deny the parasitic origin of the disease, he did not think that satisfactory evidence of its parasitic nature had been presented. It was an assumption which does not rest on sufficiently broad clinical evidence, or bacteriological demonstration. At the meeting of the American Dermatological Association in Washington, some years ago, he had reported ten cases in which there was no evidence of contagion.

DR. ROBINSON said that he would like to say a word as to the contention on which the parasitic nature of the disease is based. The presumption that the view is correct is based on the fact that those who have studied it histologically have found marked inflammatory conditions of the skin, beginning at one spot and gradually extending to the periphery, in every case, and an inflammatory process with the clinical history of alopecia areata must depend upon organisms. On the other hand, an injury to the nerve, causing the hair to fall out never gives rise to such conditions as that. The hair may fall out in a circle, but it stops there. It does not continue slowly, falling in a peripheral manner, without permanent atrophic changes in the tissues.

Case for Diagnosis. Presented by DR. TRIMBLE.

When the patient was first seen it was thought to be a case of lichen planus, and later it was thought to be syphilis. He had hypertrophic lesions on both legs, and fading lesions on the forearms. The

leg lesions resembled lichen planus greatly, especially the color. He now has moist lesions on the penis and scrotum, and split papules at each angle of the mouth. He gave a positive Wassermann reaction. There is no history of "initial lesion," and the condition has existed for a year. The patient has had twelve injections, with no effect, he says, and he has wandered from one clinic to another. He has improved somewhat under antisyphilitic treatment administered by mouth.

DR. FOSTER said it did not look to him like lichen planus, though he could not say what it was.

DRS. WINFIELD, DADE, FORDYCE and LUSTGARTEN agreed with the diagnosis of syphilis.

DR. FOX said that although at the first glance the patches on the shin with the scaling in the centre seemed syphilitic, on closer examination it looked like hypertrophic lichen planus. There was none of the circular form,—none of the condition on the edge which one would expect in syphilitic patches.

DR. ROBINSON said that he did not think many of the members would diagnose syphilis on that one lesion. If there was nothing else on the body, he would regard the case as a chronic lichen planus. It was not like any syphilis that he had ever seen.

DR. TRIMBLE said that it was thought probable the man had both diseases. It was rather peculiar about the itching on the scrotum—it was more intense there than anywhere else, the place where he had most evidence of syphilis. He gave a very distinct Wassermann reaction. He had one lesion in the mouth, which disappeared under a week's treatment.

DR. FOX said that while the pruritus of hypertrophic lichen planus is often very severe, we occasionally meet with cases which do not itch.

Circinate Syphilide of Scalp. Presented by DR. KINGSBURY.

The patient was a married woman twenty-two years of age. No history of syphilis, but she has had an eruption on the scalp for past two years. At present it consists of three unusually perfect rings on the top, back, and left side of scalp, the last extending from hairy scalp to back of external ear. The lesions vary in size from two to three and a half inches in diameter. Borders are considerably elevated and are made of thick grayish scales.

Filamentous Warts of the Face in a Negro. Presented by DR. DADE.

The case was shown only on account of the unusual picture presented by the multiplicity of the lesions; there was a regular fringe of them so to speak on the chin and extending up on the cheeks. Many had been scraped off already and others—the larger ones—frozen. The patient says he prefers the freezing process as it is less painful and the warts drop off in a day or two.

Case for Diagnosis. Presented by DR. DADE.

The patient has had these lesions for two years. One on either cheek. They strongly resemble erythematous lupus, but the very marked induration and the inability to pinch up the skin together with

the shining appearance and atrophy, though this last would not be against the diagnosis of erythematous lupus, makes a picture that is hardly one of this disease and bears more towards morphœa in these particulars.

DR. FORDYCE said that he was not convinced that it was a case of morphœa. It might be nodular lupus erythematosus.

DR. LUSTGARTEN also hesitated to accept the diagnosis of morphœa. It might be considered as a tertiary infiltration. It had not the character of morphœa, but had the indurated edge with central depression generally seen in syphilitic infiltration.

DR. BRONSON thought that it was morphœa, and that the hyperæmia was due to the treatment and not directly to the disease.

DR. ROBINSON agreed with the diagnosis of morphœa, and would like to see the tuberculin reaction tried in the case, as some writers are inclined to regard scleroderma as a tuberculide.

DR. FOX thought the congestion was due to the strong ointment that the patient had been using before Dr. Dade saw him. The shining appearance of the patches would lead him to exclude syphilis. It was probably a case of morphœa.

DR. ROBINSON agreed with the diagnosis of morphœa, but would like to see the tuberculin reaction tried in the case.

Pityriasis Rubra Pilaris. Presented by DR. WHITEHOUSE.

DR. Whitehouse said that he presented the case with a tentative diagnosis of pityriasis rubra pilaris, with a secondary infection of some of the pilosebaceous follicles. There are small nodular inflammatory lesions scattered over the trunks and limbs occupying the sites of the follicles, some of which seem pustular while some are distinctly sebaceous; there are no warty lesions. The whole process is only of six or seven months' duration. There is some keratosis of the palms. The general character of the keratosis seems to suggest pityriasis rubra pilaris rather than a simple keratosis. Its very extensive distribution together with groups of horny papules on the backs of the fingers, thumbs and radial surface of the hands, would favor the diagnosis of pityriasis rubra pilaris.

DR. LUSTGARTEN said that the chief symptoms were follicular keratoses, comedo plugs and acneiform lesions with a central comedo. He considers it a case of chemical acne, and advises taking a careful history with the aid of an interpreter. He admits having worked in some factory. He cannot accept the diagnosis of pityriasis rubra pilaris.

DR. FOX agreed with the diagnosis, but was inclined to believe there were two separate eruptions.

DR. ROBINSON said that he agreed with Dr. Lustgarten and would not attempt to make a diagnosis. He thought the diagnosis of pityriasis rubra was doubtful, and the case would require further study.

DR. FOX said that there are three stages in lichen ruber (or pityriasis rubra), the papular, squamous and rugous stages. In the papular stage, there may be no scales at all, the scaling in this case will doubtless come later. He did not think the other eruption has anything to do with the lichen ruber, for in a

large number of cases that he has observed he has never seen this condition co-existing with the typical lesions of lichen ruber.

DR. WHITEHOUSE agreed that there were two conditions on the same site—the keratosis which is indistinguishable from pityriasis rubra pilaris, and a secondary process induced either by dirt—as the patient was excessively dirty—or by the horny plug acting as a mechanical irritant, causing a perifolliculitis with secondary pus infection. He intended to watch the case further, if possible, and to get a section from the inflammatory lesions.

Telangiectasia and Pigmentation of Face from X-Rays. Presented by
DR. KINGSBURY.

The patient was a well-nourished healthy-appearing woman, thirty-three years of age. Born in Ireland, but has lived in this country for many years. She has had lupus vulgaris of the face ever since she was a young girl, and treatment has been vigorous and varied. During the past few years she has had a large number of X-ray exposures, and was burned on several occasions. The lupus was greatly benefited by this treatment, but after it was discontinued numerous telangiectatic patches developed and dark pigmented areas appeared on the chin and cheeks. There is now no evidence of any lupoid lesions, but from a cosmetic standpoint the present condition is quite as disfiguring as was the original disease.

Palmar Syphilide. Presented by DR. KINGSBURY.

The patient was an active well-developed man, thirty-eight years of age. He is decidedly neurotic but has always had good general health, although troubled with frequent attacks of intestinal indigestion. Gives history of having had a genital lesion seventeen years ago, and at present there is a suggestive cicatrix on the prepuce. There is said to have been no cutaneous lesions of any kind until twelve years ago, when a scaly eruption appeared on the right palm, and although vigorously and persistently treated it has never entirely disappeared. The eruption is a very characteristic one, and the case was shown only as an illustration of the form of late syphilis of the palm that often proves so stubborn to treatment.

DR. KLOTZ said there was no doubt about the diagnosis. It is very remarkable how late these affections sometimes occur.

DR. FOX said that the case was undoubtedly syphilitic, and although he was not ordinarily in favor of the injection treatment, yet if all other ordinary treatment had failed entirely, it might be well to try it here, for it does sometimes clear up conditions very quickly.

DR. KLOTZ approved Dr. Fox's suggestion. He had reported a case which had lasted for several years and finally cleared up under the injection of calomel. He had seen the patient recently, and he has been entirely free from the disease for several years.

DR. BRONSON stated that the patient had formerly been under his care for about eighteen months. He had previously been treated for some time by Dr. Sherwell (whose absence from the meeting was regretted), who first brought the

case to Dr. Bronson with the object of having the hand exposed to the X-rays. This was in December, 1906. At that time the appearance of the disease was more characteristic of the palmar syphiloderma than at the present time. There was some resemblance to an eczema, and there was the same horny character as now, but the marginal infiltrations were more marked and the middle portions of the patches were smoother. There were numerous fissures and considerable infiltration. The surface covered was also less extensive than now. Though from the clinical appearance, its occurrence on only one hand, and its persistent duration the diagnosis of syphilis seemed perfectly clear, no history whatever of syphilis could be obtained. The man certainly had no knowledge of any infection or concomitant symptoms, had led a clean life, was married and the father of perfectly healthy children. Dr. Sherwell and himself concurring as to the advisability of X-ray treatment, the hand was exposed for five minutes to a good radiation at a distance of eight inches from the tube. When the patient returned six days later, he was radiant—a radiance not from the Roentgen rays, but because the disease had apparently vanished. At its site was only apparent a perfectly smooth, soft, somewhat pinkish surface. A second very cautious exposure of but three minutes duration at eight inches was made, and this was followed by still further improvement. For about two months the hand was in good condition, and during this time the patient ceased his visits. In March, 1907, he returned with the affection almost as bad as in December. It had reappeared only ten days or so before. Two more exposures were made of short duration and with an interval of a week between them. These had the same good effect but of shorter duration than the previous ones. Meanwhile anti-syphilitic treatment,—both local and general,—had been pursued, but not very vigorously. In March, weekly injections of mercury salicylate were begun, which almost immediately began to show good effects. They were continued until some time in June,—when on going out of town,—Dr. Bronson referred the case to Dr. Jackson, who reported that a fortnight after the last injection the eruption had returned as bad as ever, but yielded again on resumption of the salicylate. During the autumn and winter following the disease seemed rather less responsive to the injections than at first, but was plainly controlled by them. The patient was last seen by Dr. Bronson in the spring of 1908. At that time the disease was still persisting, although gradually improving.

Dr. FOSTER inquired whether something had not been said about a suspicious scar on the prepuce, and was answered in the affirmative.

Dr. JACKSON said that he had treated the man about two years ago during Dr. Bronson's absence from the city, with injections of salicylate of mercury. The lesions disappeared, but later returned as bad as before. At that time only a few fingers were affected.

Dr. LUSTGARTEN said that he felt no doubt about its being syphilis. These forms of psoriasiform or eczematiform syphilides of the palms and soles require very energetic (like bichloride injections, sweat cures with the aid of pilocarpine, etc.), and repeated specific treatments.

Dr. FORDYCE said that there seems to be an analogy between the obstinate scaling syphilides of the palm and sole and certain leucoplakias of the mouth.

Dr. KINGSBURY said that the case was shown as illustrating the rebellious form of the disease. There was never any doubt that the lesion was syphilitic, yet it did not get well under specific treatment. Some of these cases of syphilis of the palm yield very quickly and others are extremely rebellious. This man has improved a number of times, but only to have the condition recur later every time. He has had this eruption now for twelve years practically all the time.

Dr. ROBINSON suggested a diet of milk and green vegetables, and a maintaining of the system in a proper degree of alkalinity, in addition to specific treatment.

NEW YORK ACADEMY OF MEDICINE, SECTION ON
DERMATOLOGY

Stated meeting held March 2, 1909.

DR. SIGMUND POLLITZER in the Chair.

Epithelioma of Finger. Presented by DR. DADE.

Presented as a case cured by liquid air, no lesion now remaining.

Bullous Eruption. Presented by DR. LAPOWSKI.

The child was presented at the last meeting with an extensive bullous eruption. Treatment has consisted of the local application of ten per cent. mercurial paste, and internally syrup of the iodide of iron. All the lesions disappeared leaving only reddish marks. Whether the result is due to the treatment or to the natural tendency of the disease will be indicated by the control of future relapses by the same remedies.

Dermatitis Herpetiformis. Presented by DR. LAPOWSKI.

The patient was a girl twelve years old. She had been under Dr. Lapowski's care for the last eight years. The same lesions,—vesicles, bullæ and pyoderma, seen at present have occurred at various intervals for the last eight years in various degrees of intensity. The bullæ group themselves in full circles, one-half to one inch in diameter, or in irregular infiltrated red patches. The lesions spread from the center, leaving no scars after their disappearance. The bullæ either open, leaving an oozing, red surface with remnants of the bullæ on the edges, or dry up into crusts, which after having fallen off leave a reddish surface. The lesions appear over all parts of the body, and the same localizations are sometimes involved during relapses. There was never any fever. The mucous membrane and nails always remained free. Various local and internal remedies (arsenic, atoxyl, mercury, iron) were tried without any marked effect upon the disease.

The eruption after remaining for a certain period—six to ten weeks, will subside—even entirely disappear, but will reappear without any reason after various periods. X-ray has been tried in various periods of the disease, but has always aggravated the lesions. The general condition is always satisfactory.

DR. DILLINGHAM said that the child had an unmistakable case of varicella and what was now a coccogenic dermatitis.

DR. DANA HUBBARD said that the child at present in his opinion was suffering from a varicella as shown from the multiform character of the lesions—the spindle-shaped character of the older lesions and the distribution of the rash, it being entirely over the body and in the scalp, that the child did not appear to be scratching much, if any, that the lesions on the buttock were

older than the other lesions and were in the character of a pyodermia, and that while the child may have suffered from time to time from attacks of dermatitis herpetiformis there were no lesions present to make the speaker think it had that diseases now.

DR. POLLITZER said that pyodermia would not account for the bullous lesions recurring several times a year, the remains of one attack being now visible. The child had a varicella undoubtedly, but this had no relation to the other lesions.

DR. FORDYCE said that dermatitis herpetiformis with concurrent or subsequent pyodermia was not uncommon, and that he considered the lesions on the buttocks in this case probably due to the common staphylococcus albus of the skin.

DR. LAPOWSKI acknowledged that the patient had both varicella and pyodermia, but insisted that she was and had been suffering from dermatitis herpetiformis, to which the other diseases had been added.

Adenoma Sebaceum. Presented by DR. DANA HUBBARD.

This was a young girl of sixteen years, born in this city, of Irish parentage. Of six children in this family only two are alive. This girl when about two months old had convulsions. Shortly afterward it was noticed that her face grew very red and that the spots lingered and after a time became lumpy. The spots gave no inconvenience, and so no attention was paid to them until she grew up and commenced to take notice of her personal appearance. Mentally she is fairly keen—attended public school and was never held back—has never been considered dull or stupid by her family—has always done her home work nicely. About three months ago she had a fright which was followed by a mild chorea, treated at one of the city's dispensaries; and at present she shows no evidence of the same. This girl appeared at the Dermatological Department of the Vanderbilt Clinic in the service of Prof. George Thomas Jackson by whose courtesy I am permitted to show her. The lesions of the face appear to be small *nævi* with telangiectases—there are no pigment spots and only a few soft pedunculated moles on the left shoulder.

Syphilis of the Leg. Presented by DR. LAPOWSKI.

The gummatous infiltration of the leg of this patient who was presented at the last meeting turned into very pronounced fluctuation; by slight incision several tablespoonfuls of sweet pus were removed. The place where the incision was performed turned into a classical gumma as seen now. The swelling greatly diminished and the pain disappeared entirely under injections of calomel and potassium iodide internally, and indifferent dressings locally.

Melano-Sarcoma. Presented by DR. AITKIN.

The patient was a man aged thirty-five years; by occupation a tailor; born in Germany. Family and personal history are negative. About eighteen months ago there developed a small black papule about the

size of a split pea on the outer side of left foot, one inch below the malleolus, which gradually increased until it attained the size of a cherry, when it was excised by the family physician. About two months subsequently there appeared simultaneously several pea-sized, hemispherical, bluish-black papules on the dorsum and outer side of same foot, slightly yielding but not painful on pressure; slowly increasing in size until at present the dorsum presents several clearly aggregated and four coalesced nodules, ranging in size from a marble to a walnut, some of which are covered with crusts, and others presenting a fungating surface emitting a foul odor. There are also several small, black, firm, elastic globules, irregularly scattered on the upper and inner dorsal surface, apparently arising from the healthy skin with no inflammatory base. The leg is considerably enlarged and very painful from existing lymphangitis. There are also four black specks, very superficial, on the outer and upper third of leg, probably the starting points for the development of other lesions. There is absolutely no history of *nævus*. Diagnosed as *melano-sarcoma* of the skin.

DR. WALLHAUSER suggested that this might be a *hæmorrhagic sarcoma* of the *Kaposi* type, as it is not developed on a *nævus* and had not metastasized as a *melano-sarcoma*, but developed irregularly in various locations. Furthermore, there is no involvement of the glands and the patient is apparently in robust health eighteen months after the beginning of the disease. A microscopical examination should be made to decide between the two conditions.

DR. JANEWAY said that this tumor belonged to the group usually called *melanotic sarcoma*, or *melanoma*, but that in reality it was probably of epithelial origin, and is the tumor classified by Robbert as *chromotophosoma*. Such cases may occur as late as twenty years after removal of primary growth.

DR. FORDYCE said that it was curious that so many of these cases began on the foot. Those which arise from pigmented moles may often be purely carcinomatous, but where they arise independent of moles, it was very difficult to say as to whether they are carcinomatous or sarcomatous. Tissue excised from lesions which have reached any appreciable development show pigment in both epithelial and connective tissue cells.

DR. POLLITZER said that in these cases the microscopical appearance was sarcomatous, and that the carcinomatous nature of the lesion was only inferred, theoretically, from its origin in a *nævus*.

Syphilis in a Child. Presented by DR. LAPOWSKI.

The patient was a girl about six years old, with *gummata* on the forehead, chin, knee, and leg, and *dactylitis* of the right thumb. She has been treated for many years for tuberculosis.

Two Cases of Fibroma Molluscum. Presented by DR. TRIMBLE.

The first case, the mother, was previously shown before the New York Dermatological Society. It is typical of its kind, the lesions varying in size and covering the entire body. The majority of the tumors are small, and many are bladder-like in character, the contents having been absorbed. The point of interest is in the fact that the

daughter, now nineteen years old, has similar tumors on the forearm. They began at sixteen, the same age as that at which the disease began in the mother.

Dr. FORDYCE said that it was very unusual for this disease to occur in two members of the same family and that the occurrence supported the view that the disease belongs to the group of the *nævi*.

Dr. POLLITZER said that it was noteworthy and exceptional that there seemed to be no feebleness of intellect in either of these cases.

Mycosis Fungoides. Presented by Dr. JANEWAY.

The patient was a woman fifty-five years old and has had nine children. Of these two were late miscarriages, two died soon after birth, and one at two and one-half years of age. The only illness has been some pelvic affection with abdominal pains and discharge, coming on soon after her marriage. Her present trouble began six years ago. Small red spots appeared on the left leg; these varied extensively in their redness and size from time to time. Two years ago erythematous areas appeared on other regions of the body. Some years ago an erythematous area appeared upon her left thigh. Two years ago this spread to other regions of the body, and one year ago ulcerated. Examination shows the patient to have circumscribed, slightly thickened, scaly red areas on both legs, hips, abdomen, lower back, and both arms. Upon her left thigh there are crustings, and minute ulcerations underneath some of the crusts. The Wassermann reaction was positive.

Mycosis Fungoides. Presented by Dr. JANEWAY.

The patient was a man forty-three years of age, clerical business by occupation, born in Germany. He has always enjoyed the best of health. He denies syphilis; has been married twenty years and has four children. Only once during his married life has he exposed himself to any chance for contagion. Eight years ago upon the breast he first noticed an erythematous area; six years ago another area appeared upon the calf of the right leg. One year later other spots appeared on various parts of the body. Ulceration first developed upon one of the spots on the arm one year ago; this healed spontaneously. The erythematous areas during the past eight years up to four weeks ago varied considerably in redness, scaling and itching. Four weeks ago very suddenly there burst out all over his body rupoid ulcers. These have increased in size and numbers to the present time. At present they vary in size from the diameter of a pea to that of a silver dollar. They are all situated upon erythematous bases before described. They have some thickness and scaling upon their surfaces, and sharply circumscribed margins. Many of these areas have a gyrate configuration. The Wassermann reaction was positive.

Dr. BULKLEY said that he believed the woman presented a case of mycosis

fungoides. In spite of the positive Wassermann reaction, however, he did not believe that the lesions shown by the man were syphilitic. Such rupia should occur in the first three years of syphilis; yet the most careful investigation had failed to reveal any other symptom or any other history of that disease. Neither was there any history of drug taking. He had, however, taken very hot vapor baths, and later very frequent cold baths, thus making the skin vulnerable. There was a history that tumors had been present on the shoulders and had disappeared. Dr. Bulkley was convinced that this was a case of mycosis fungoides, occurring in a weakened skin, and in which the lesions had been infected.

DR. LAPOWSKI said that the woman showed gummata when he first saw her two months ago, and he believed she had both syphilis and mycosis fungoides. In regard to the man he said that if this were an iodide eruption, iodide should be present in the urine, and a chemical test would settle the point. He believed, however, that it was not an iodide eruption, but a rupial syphilide. The erythematous areas correspond with the late erythematous syphilide described by Fournier as occurring as much as ten years and more after infection.

DR. TRIMBLE said that although both the patients gave a positive Wassermann reaction, the lesions now present might well be those of mycosis fungoides, as there was no reason why that disease should not occur in a syphilitic subject.

DR. POLLITZER said that a diagnosis of mycosis fungoides could not throw any discredit on the Wassermann reaction, as the disease might well occur in syphilitic subjects. Most of the lesions in the woman were those of mycosis fungoides, but some of those on the leg, especially the crescentic ulcer, were syphilitic. The man had a characteristic rupial syphilide. His erythematous lesions might be the premycotic stage of mycosis fungoides, but he would not care to express a definite opinion as to their nature.

DR. JANEWAY said that the man was positive that he had taken no medicine for two years before the eruption appeared; and being a man of intelligence and desirous to co-operate in his treatment, there could be no reason for doubting his word. Since the second of January he had received four injections of calomel of one decigram each, and seven and a half grains of potassium iodide three times a day. In this time there had been improvement in the symptoms. The Wassermann reaction had been performed by Dr. Meakins of the Presbyterian Hospital.

Case for Diagnosis. Presented by DR. DAISY M. ORLEMAN ROBINSON.

This case was shown because of the difficulty experienced in making a positive diagnosis. The patient was a male, thirty-two years of age, occupation engineer. He came to the clinic one month ago. There is a negative history as regards syphilis or any previous cutaneous eruption. He has an extensive indolent acne vulgaris, well marked on the shoulders and back which has existed for about one year. When first seen by the presenter there was an extensive eruption on the body, especially on the chest, abdomen, back and dorsum of hands; the face, palms and soles were free. Itching was a prominent symptom, interfering markedly with sleep. The lesions on the trunk varied in size from a pea to one inch in diameter, symmetrically distributed, and in many parts were somewhat grouped. The extensor surface of the arms, the wrists, and backs of hands showed thickly studded lesions, large pin-head to pea-size and larger, which were sharply limited, slightly elevated, reddish in

color, the redness disappearing greatly upon pressure, somewhat acuminated, resembling lesions not unlike those of a papular eczema and showing no appreciable scaling, but rather a shining surface. The lesions on the trunk presented quite different characters; they varied in size from the small pea to one inch in diameter, circularly shaped, slightly elevated, pale reddish flattened surface, and generally covered with fine, whitish scales. The smallest lesions showed but little scaling and some gave the appearance of a commencing clearing of the centre similar to that observed in pityriasis rosea except that the parchment-like appearance upon extension was not observed; otherwise many of the lesions resemble those of this disease. The scaling in the larger lesions could not be removed by traumatism, nor did oozing of blood follow when traumatism was not severe. These lesions otherwise markedly resemble those of psoriasis or some cases of seborrhæal eczema. Dr. Robinson was inclined to consider the case at this time one of psoriasis. The patient showed, one week later, the following condition: The lesions on the dorsum of the hands had increased in size, all of similar character in that they were sharply limited, more elevated, dark reddish in color, but had a flattened shining surface, the smallest ones generally showing an umbilicated centre and the larger ones a depressed centre. A few of the larger ones showed a depressed central portion with hard, irregular, adherent scales depicting a keratotic process. Except that the majority were circular in shape and not three or four sided, the lesions were exactly similar to those usually observed in lichen planus, and individual ones, even now, cannot be differentiated from classical lichen planus lesions, and had the lesions been limited to the hands, a positive diagnosis of this disease could have been made. The lesions on the trunk have increased somewhat in size and have slightly changed in character in that the centres show less activity of process than the peripheral part, and in many of the lesions there appears small, pin-head-sized, papular infiltrations as may be observed in some syphilitic lesions. The lesions here did not show any flattened shining surface, did not rise perpendicularly above the general surface at the margin, and were not violaceous in color but of a light reddish tint; objective characters which the speaker had not seen in lichen planus nor was she aware that they had been described. The whole of the hard palate and a considerable portion of the sides of the buccal cavity show a decided keratotic condition which is most marked in the posterior half of the pharynx where the thickening of the corneous layer is very prominent. The surface looks hard and dry. On the sides of the buccal cavity there are some isolated leukoplakia patches, pea-sized or larger, sharply limited, very slightly elevated, and glistening white in appearance. The patient smokes considerably. A Wassermann test using lecethin as antigen was made which gave a positive reaction.

DR. BULKLEY said that he could not recognize this case as syphilis. Some of the lesions were superficial, some were deeper; none were firm enough for

syphilis. Many of the spots on the body were of irregular outline, with projecting points—a condition which does not occur in syphilis. The lesions in the mouth were those found in excessive smokers; they might also be due to lichen planus, but they were not characteristic of that disease. He believed the diagnosis in this case would lie between lichen planus and parapsoriasis.

DR. A. R. ROBINSON stated that he had this case under observation about three weeks and had lectured upon it at the Polyclinic Medical School and Hospital twice. He agreed entirely with the description of the case as presented, and also with the points as diagnosed. At the time of first observation he thought the case might be one of somewhat atypical psoriasis, atypical as regards the lesions on the back of the hands that looked more like lichen planus or a papular syphilide. He had never seen a case of either syphilis or lichen planus present such lesions as were present upon the body, but has seen very similar ones in psoriasis in syphilitic subjects, and showed such a case before the Section last year. About two weeks ago he regarded the lesions on the hands as typical lichen planus lesions, but could not make a diagnosis of the lesions on the body. A few days ago some of the larger lesions on the hands showed the sinking in of the center as has been described and as is seen in a syphilide but not in lichen planus, whilst many of the lesions were exactly those of lichen planus. The lesions on the body were as at present like a seborrhæal type of psoriasis. He had stated to the class before whom he lectured that a positive diagnosis could not be made at present, as between a papulo-squamous syphilis, a lichen planus, and a psoriasis, and that there might be a combination present. If the Wassermann reaction is to be relied upon when the results are positive then he would favor the diagnosis of syphilis. It is certainly an interesting case and is atypical whatever the correct diagnosis may be.

DR. LAPOWSKI said that in all cases of extensive lichen planus seen by him, lesions occurred in the mouth. Those found in this patient, and especially those upon the hard palate, were characteristic of lichen planus, and were not like those found in hard smokers. The fact that improvement had occurred after the administration of mercury did not speak against lichen planus, as mercury was often an efficient remedy for this disease.

DR. OULMANN would suggest a diagnosis of pityriasis lichenoides psoriasis-forme.

DR. POLLITZER said that lichen planus was seldom observed on the mucous membrane only because it was seldom looked for, and that a careful examination would reveal it in that location in about one-third of the cases. In this case, the mouth lesions by themselves were enough to make a diagnosis of lichen planus. Those on the hands also were characteristic. The circular lesions on the trunk would not exclude lichen planus, and in a few weeks they might disappear or might develop into typical flat papules.

Favus of the Leg. Presented by DR. LAPOWSKI.

Below the left knee is a large pear-sized, dry, yellowish, rough mass raised two inches above the surface and surrounded by a red border. The mass is of four months' duration.

DR. POLLITZER said that the lesion was extremely interesting, as it was entirely different from the form ordinarily seen, and resembled very closely a culture of the favus organism on an artificial medium.

Gumma of the Nose. Presented by DR. POLLITZER.

The patient was a woman forty-three years old. She was treated five years ago for an epitheliomatous ulcer at the tip of her nose. She received fifteen X-rayings resulting in a complete cure of the ulcer, and

the patient was shown at a medical society at that time as an example of a perfect cure. Six months ago she reappeared at the clinic with an ulcer resembling a superficial epithelioma located on the side of the nose near but not at the border of the former ulcer. She was again treated with the X-ray, with some improvement at first, later the condition remaining stationary. A few weeks ago an examination revealed a deep, circular, punched-out ulcer with a dirty seropurulent secretion. The appearance suggested a gummatous ulcer so strongly that the Wassermann test was employed and gave a positive reaction. The patient has been on antisyphilitic treatment for three weeks and the deep ulcer is now almost entirely filled up.

Tuberculosis of the Elbow. Presented by DR. LAPOWSKI.

The patient was a boy, seventeen years old, of a tuberculous family. He was shown on account of the tuberculous lesions on the skin around a sinus leading to a tuberculous elbow-joint.

Erythema Perstans. Presented by DR. MACKEE.

The patient was a young man, twenty-two years of age, single and a native of Austria. Previous cutaneous eruptions were denied. His present condition developed three months ago, attaining its maximum in forty-eight hours. The eruption, which was generalized, consisted of large and small gyrate and circinate patches of erythema, many of which were distinctly elevated. The cutaneous manifestations were accompanied by malaise, slight fever and congestion of the mucous membrane of the eye and throat. The urine did not contain albumin, sugar, or indican. The eruption throughout the three months has remained the same with the exception that the elevation of the lesions is less marked and, during the past week, several vesicles have developed on the forearms. The diagnosis of drug eruption has been suggested, but previous to the outbreak the patient had taken no medicine with the exception of a headache powder.

DR. LAPOWSKI said that this was a drug eruption. It appeared first, on the knees, after taking headache powders, and then spread to the rest of the body after taking more drugs.

DR. POLLITZER said that he agreed with the original diagnosis, and that he knew of no drug eruption of this extent, character, and duration.

DR. DANA HUBBARD said that he had himself suffered from a similar eruption while a student and badly run down. He felt sure that it was the expression of an autointoxication and that it had no relation to drugs.

Epithelioma of the Nose. Presented by DR. DADE.

The patient was presented as an example of an epithelioma cured by liquid air.

Lichen Planus of the Palms and Soles. Presented for DR. T. G. LUSK by DR. WISE.

The patient was a man thirty-two years old, married, born in Russia;

a motorman. There are no skin eruptions in the family. The mother has suffered with "rheumatism" occasionally. The patient has always been healthy, having had no previous skin or venereal disease. He has occasional attacks of arthritic pain, which may be rheumatic in nature. The present eruption began on the wrists about four months ago, and progressed steadily. The present eruption of lichen planus appears in the palms of the hands, soles of the feet, the legs and forearms. A few scattered papules on the backs of the hands and feet are present; the rest of the skin is free. Patient complains of intense itching, and interference with his work from the palmar and plantar lesions. The treatment has been by arsenic and bichloride of mercury internally, and soothing lotions externally.

CHARLES M. WILLIAMS, M. D., *Secretary.*

PHILADELPHIA DERMATOLOGICAL SOCIETY

The regular monthly meeting of the Philadelphia Dermatological Society was held at the Polyclinic Hospital, on April 20, 1909, at 8:30 o'clock. DR. M. B. HARTZELL, presiding.

Tumor of the Jaw. Presented by DR. PFAHLER.

The patient presented was a boy, eight years of age; healthy in appearance. There was a hazelnut-sized, elastic and soft tumor, on the right side of the gum, on the upper jaw. The mucous membrane over the tumor was of a dark red color. An X-ray picture taken of the growth, showed that the cancellous tissue of the alveolar process had been somewhat destroyed. The tumor has had a rapid growth, but two months having elapsed since its beginning. No history could be obtained, as the boy was Polish. The condition has been slightly improved by X-ray treatment; six exposures having been given during the last three weeks.

DR. PFAHLER said that he considered the tumor a sarcoma. No biopsy had been made for fear of opening up the various channels to the spread of the disease.

DR. HARTZELL said that he would hesitate in making such a diagnosis, without further proof of the same.

DR. SCHAMBERG thought that a biopsy should be made.

Tuberculosis Verrucosa Cutis. Presented by DR. STOUT.

The patient was a rather anæmic, frail-looking girl, of thirty-three; she had first noticed the present lesion six years ago. The family history is unusually significant; the mother died of tuberculosis five years ago. There was also the history of cancer in the family. The patient gave a history of having had a cough for some years; a few months ago a severe attack of, supposedly, pneumonia developed. At the present

time, there is a patch two inches in length by one inch in width, on the dorsal surface of the left hand, over the metacarpal bones, at the base of the index, middle, and ring fingers; fully one-half of the little finger is involved. The lesion is reddish in color, with yellowish-gray verrucous processes on the surface; the papillomatous surface is caused chiefly by extraneous matter.

DR. HARTZELL said that he thought that in a great many cases, without a biopsy, it was almost impossible to make a differential diagnosis between tuberculosis verrucosa cutis and blastomycosis. The diagnosis in the present case, however, is clear.

DR. SCHAMBERG said that in certain cases he considered an individual with tuberculosis of the skin might be immune from lung tuberculosis, or the reverse immunity may occur.

DR. HARTZELL considered that a large proportion of patients with lupus vulgaris die of pulmonary tuberculosis.

DR. STELWAGON referred to the comparative frequency of skin tuberculosis in coal miners. The miners being subject to pulmonary tuberculosis. Infection occurs by wiping the mouth with the back of the hand.

Tuberculosis of the Skin(?). Presented by DR. DAVIS.

The patient presented was a male of forty-five, healthy in appearance, and with no symptoms of tuberculosis. Twelve years ago sinus-like lesions appeared on the left gluteal region; these openings have increased in number until there are at least a hundred; the entire buttocks being "honey-combed" with them. The gluteal region on the involved side is considerably enlarged, bluish-red in color, somewhat boggy to the touch, and there is a thin discharge from the various openings. The sinus-like openings are in reality not sinuses, but small, very superficial lesions, into which a probe can scarcely be entered; these various openings give the surface a somewhat papillomatous appearance. Various bacteriological examinations for the ætiological factors of sporotrichosis, blastomycosis, and tuberculosis have been negative.

DR. DAVIS said that he wished to express his thanks to Dr. LeConte for the privilege of exhibiting the patient.

Those present thought that it was probably a case of tuberculosis.

Chondro-Sarcoma. Presented by DR. PFAHLER.

The patient was a small male, forty-five years of age, and in poor condition. The present tumor started three years ago, six months after an injury to the lower portion of the sternum. The growth of the tumor has been rapid, two operations having been performed; recurrence occurring a short time after each. During the last year, the patient has had one hundred and forty-nine X-ray treatments, which have held the condition practically stationary; alternately improving and relapsing. On several occasions the tumor has been reduced to hazelnut-size. The exposures have lasted from fifteen to thirty minutes. The tumor at present is apple-size, and is located on the lower part of the sternum, mid-way between the two nipples; the characteristics of the growth can

be only partially determined, as most of the tumor is covered with clotted blood. The growth is three by two and one-half inches in size. There is a marked dermatitis surrounding the involved area, with numerous dilated capillaries. The X-ray besides setting up the dermatitis, has bronzed the skin of the chest and neck. Microscopical examination proved the diagnosis.

Those present agreed that the X-ray offered the only hope for checking the condition.

Case for Diagnosis. Presented by DR. DAVIS.

The patient was a female of eighteen years; she had first noticed the start of the present condition nine months ago. There were three dime- and smaller-sized lesions on the right lower leg, on the left edge of the tibia; the skin being freely movable over the bone. These lesions were superficial ulcers, with sharply marginate edges, and a red surface. There was apparently some swelling of the tibia, and also slight tenderness. A skiagraph was made, which showed a periostitis.

DR. DAVIS said that he thought it suggested somewhat Bazin's disease.

DR. STELWAGON agreed that it belonged to that class.

DR. HARTZELL said he did not believe that it was Bazin's disease, but thought it resembled the type of lesion which followed a phlebitis.

Lupus Vulgaris(?). Presented by DR. SCHAMBERG.

The patient exhibited was a female of sixty-five; she stated that the present condition started twenty years ago. There were two distinct patches on the outer surface of the left arm, in the neighborhood of the elbow. There was a slight dermatitis on the inner surface of the elbow, connected with the chronic areas. The patches were dark red in color, with scarring, and some ulceration; although no typical nodules could be found. Potassium iodide and mercury had been given for a week without effect. One patch was palm- and the other silver-dollar in size.

DR. SCHAMBERG said that he was undecided whether the case was syphilis or lupus vulgaris.

DR. HARTZELL thought there was a certain translucency about the lesions which suggested lupus vulgaris.

Eczema, Resembling Lupus Erythematosus. Presented by DR. STOUT.

The patient was a farmer, forty-one years of age, who gave a somewhat indefinite history of the present disease having lasted for some time. There were erythematous patches, with slightly scaly surfaces, on the nose, cheeks, and ears. Those on the nose and ears were slightly marginated, and the follicles were a little more patulous than usual. The skin was thickened but there was no oozing. There were a few pea-size scars on the dorsal surface of the hands, the origin of which was unexplained.

Syphilis and Psoriasis. Presented by DR. SCHAMBERG.

The patient was a male of thirty-four; who gave the history of having had the outbreak on the lower extremities for about one year, and

of having had several attacks of the other condition, extending back some years. There were several scaly areas on the scalp and posterior to the ears; these patches were somewhat sharply marginate, with whitish scales on the surface. He stated that in previous attacks this type of eruption had been somewhat generalized over the trunk, the extremities, and the scalp. On the lower legs were found about two dozen, dime-sized and smaller, pigmented scars; almost typical of a former active attack of syphilis.

Eczema, Resembling Mycosis Fungoides(?). Presented by DR. SCHAMBERG.

The patient was a male of seventy-one years; who stated that the present attack started but two months before. The eruption was limited to the right leg, excepting a scaly condition of the scalp. There was a large patch on the leg, extending from the knee to the ankle, reddish in color, markedly infiltrated, with a sharply marginate somewhat serpiginous border. The entire patch, according to the history, spread from a raised, sharply margined, flat, half-dollar-sized, indurated lesion below the right knee. There was some pruritus, but no subcutaneous nodules, or tumors.

Both DR. STELWAGON and DR. HARTZELL said that the character of the eruption resembled markedly a premycotic stage of mycosis fungoides.

Tubercular Syphiloderm, with Leukoplakia. Presented by DR. PFAHLER.

The patient was a male of fifty; who stated that he had had the present eruption for one year. There were pea-sized nodules, with a somewhat serpiginous arrangement below the lower lip. On the lips, particularly the commissures of the mouth, on the tongue, and slightly on the inner surface of the cheeks were found smooth, white patches; typical of leukoplakia.

DR. PFAHLER said that he had brought the case for an expression of opinion as to the cutaneous diagnosis.

Both DR. STELWAGON and DR. STOUT stated that they had previously seen the patient, and that their diagnosis had been tubercular syphilis.

An Extensive Case of Lupus Vulgaris. Presented by DR. STOUT.

The patient exhibited was a female of thirty-one years, born in Germany. According to the history, the disease began at five years of age and has been progressive since then. There are two patches, the first extends from the forehead, just above the eyebrows, to the middle of the scalp; the second, involves an area, extending from the middle of the upper thigh to the middle of the left lower leg. These patches are made up of typical lupus nodules; the borders are sharply marginate, raised, verrucous, partaking markedly of the characteristics of tuberculosis verrucosa cutis. It is a most extensive case. The patient apparently has no cough.

Those present agreed that the exhibited case was one of the most extensive seen recently.

FRANK CROZER KNOWLES, M. D., *Reporter.*

REVIEW of DERMATOLOGY AND SYPHILIS

Under the Charge of GEORGE M. MacKEE, M. D.

DISEASES OF THE HAIR AND NAILS.

By FRANK CROZER KNOWLES, M. D.

Large and Small Spored Ringworm of the Scalp in Children. F. GLASER.
(*Berliner klin. Wochenschr.*, 1908, xlv, p. 2013.)

Glaser states in the beginning of the paper, the fact that trichophyton infection is unusual in Germany. Such well-known authorities as Jarisch, Finger, Plaut, Joseph, Neisser and Jadassohn have seen but few cases of tinea tonsurans. Two patients with tinea of the scalp are referred to in the article, the cause in one case was the microsporon Audouini, and in the other the endothrix form of the trichophyton. The diagnosis should not be based on the clinical characteristics, but a microscopic examination, cultural experiments, and animal investigations should be performed to distinguish between the large and small spore groups. Numerous cultural experiments were made in these cases, various media being tried, the best growth occurred on maltose agar. The microsporon Audouini gave a uniform white color on the media used, but was the most marked on the maltose agar. The cultures made from the other case showed the characteristic crateriform depressing in the center. The microscopic picture in each case was diagnostic. Various specimens of small spored fungi, sent by various authorities in different countries, were carefully examined by Glaser before he finally determined that the fungus, in one of his cases, corresponded to the Audouini form. According to the author, the large spore fungus is the usual cause of tinea tonsurans in Germany.

Circumscribed Congenital Alopecia. W. DUBREUILH and G. PETGES.
(*Annal. de Dermat. et de Syph.*, 1908, p. 257.)

The subject of congenital circumscribed alopecia is discussed under four headings; alopecia caused by the presence of a nævus; the arrest of development because of an adherent amnion; traumatism from obstetrical procedures; and hair loss from a hydrocephalic condition. The alopecia connected with a nævus of the scalp, may consist of total baldness of the involved area, of partial loss of hair, or changes in the hair itself; such as brittleness, changes in the color, or in the texture. The cases of several authors are mentioned, serving to illustrate the various phases of nævus alopecia. Bonnaire was the first to call attention to alopecia

produced by an adherent amnion; several other authors have added to the number. At the birth of the child small ulcerations (pseudo-ulcerations) are noted on the scalp; the bald areas radiate from these lesions. Similar superficial ulcerations are, in certain cases, present on the body surface, and atrophic changes of the skin may be general or only noted in certain locations. These pseudo-ulcerations of the scalp are usually small, three-cent-piece to pea-sized, situated close to the posterior fontanelle, more or less translucent, somewhat gelatinous in appearance, adherent to the skin; two to three days after birth the lesions dry up and leave a cicatrix. The consecutive alopecia is larger than the lesion observed at birth. The hair loss in the involved area may be total, or some of the radiations from the original point of injury may show only thinning. Traumatism from obstetrical maneuvers is given as a cause of alopecia. The use of forceps apparently is the source of the congenital hair loss. A few cases of this character have been reported; in Brindeau's case, two symmetrical patches of alopecia were noted on the sides of the temporal regions, corresponding exactly to the areas where the blades of the forceps had been applied. The fourth cause of congenital circumscribed alopecia is from hydrocephalus. Audry's case is mentioned, in which the hair loss occurred over the sutures, because of the extreme tension of the skin. The alopecia in this case was bilateral, and chiefly in the occipital and parietal regions.

An Epidemic of Small-Spored Ringworm in St. Gall. R. ZOLLIKOFER and O. WENNER. (*Correspondenz-Blatt für Schweizer Aerzte*, Sept. 1, 1908.)

The epidemic consisted of forty-five cases, the first case being discovered in a school boy. A central office was started in order to examine systematically all suspicious cases; of 243 suspected cases, but forty-five gave positive findings. Twenty-one of the cases occurred in boys, in sixteen the scalp was involved. Fifteen girls were attacked by the disease, the cutaneous surface was the site of the tinea in five cases. Nine cases were recorded in women, on the integument. The oldest patient with involvement of the scalp was fourteen years of age; the youngest, three. The oldest patient with ringworm of the skin was sixty-nine. Two distinct types of eruption were noted on the scalp; the one was superficial, with no infiltration, consisting of brownish-red spots, round, but somewhat irregular in contour, with a short duration; the other was more like the usual form, the papillæ being noticeably prominent, the patches were round, of good size, with some itching, and in the beginning signs of inflammation, later they became paler, and slight pigmentation was seen; this latter form had the usual chronic course. In some cases there was a serous exudate and crust formation, so that the picture resembled an impetiginous process. The falling of the hair was not as marked a feature as the breaking of the same. The broken hairs were

dull in appearance and somewhat whitish in color, probably from the scales, rigid and brush-like; giving the characteristic picture of the microsporon infection. After extensive experiments had been carried out the ætiological factor was found to be the "microsporon lanosum." There was a distinct tendency for the outbreak to occur among members of the household rather than among the school children. Cats were found to be the source of infection in several instances. The X-rays were used in the treatment of the cases.

A Curious Nodular Formation on the Hairs in Seborrhoea Capillitii.

LUDWIG WAELSCH. (*Archiv f. Dermat. u. Syph.*, June, 1908, p. 79.)

Waelsch describes in the article "a peculiar node on the hairs in seborrhœa capillitii." The patient was a woman of twenty, who had had a marked falling of the hair for some years, with considerable scaliness of the scalp; the scales were greasy and adherent. The hairs had become very short on the top of the head during the last few years. The hairs on the posterior portion of the scalp had a peculiar appearance; one to two centimeters above the mouth of the follicle, a small globular, horny, grayish-yellow body was found, in most cases piercing the hair, but in a few apparently only adherent to the same. The author considers that this is a unique anomaly. Cultural experiments and numerous microscopical examinations were carried out to differentiate the condition from trichorrhæxis, piedra and nits.

Traumatic Alopecia. WECHSELMANN. (*Deutsche med. Wochenschr.*, 1908, xxxiv, p. 1982.)

The subject is discussed under various headings; first, injuries, either so severe that the patient is unconscious for some hours or days, with paralytic symptoms, interference with sight, hearing, and the other functions of life; or so mild that scarcely a bruise is left from the fall or blow. Cases of alopecia are cited, in which injuries acted as the cause of the condition. Severe fright is given as the cause of the second group; this alopecia being traumatic, because of the action of fright on the cerebral blood vessels, of the central nervous system. There is also a peripheral action, a vasomotor derangement which is characterized by a spastic contraction of the small arterioles. In the third group are placed those cases in which the nervous system is deranged; this derangement apparently predisposing to alopecia, following even a slight injury; thus epileptics, choreics, or sleep walkers are particularly susceptible to the condition. Menstrual disorders or pregnancy may have their affect on the hair. In group four, psychical trauma is given as a cause of alopecia; as in dispondent individuals, from extreme worry over health, accidents, etc. In the last group various arterial changes are

mentioned as causal; heart neuroses, and in late years arteriosclerosis, combined with, in some cases, a slight trauma. It is accepted that anatomical and functional lesions in the central nervous system are caused by various traumata. After experimental and clinical experience it becomes evident that cerebral injuries produce peripheral trophic trouble. Upon these two last statements the author bases his theory as to the cause of certain cases of alopecia areata. Numerous examples are cited in the paper.

Trichonodosis. E. GALEWSKY. (*Archiv f. Dermat. u. Syph.*, August, 1908, xci, p. 225.)

Galewsky first wrote of the condition in 1905. In the article, the cases of Saalfeld, Michelson, Jackson, MacLeod, Kren, etc., are referred to. The author states that he has seen seventeen cases of the disease, in his private practice in the last two years; fifteen of the cases occurred on the hairs of the head of women. In one case, he found the condition present on the head, the beard, the pubes, and on the the hairs of the upper and lower thighs; and in another case, also, on the pubic hairs. The hair was dry and brittle, with a tendency to break, and in most cases a hair loss was noted. Out of 117 women that consulted Galewsky last year, for falling hair, eleven had trichonodosis, and twenty-seven had trichorrhexis. In most cases there was only one knot on the hair, real knots occurred as frequently as loops; a great many of the knots could be seen macroscopically. Defects were found in the hair substance in almost all cases, with flattening, and splitting. Various predisposing causes are suggested, mechanical injury of the hair, from the frequent use of oily substances, soap, petrolatum, alkalies, and various other irritating substances, rapid drying by electricity, sharp bristles on the brushes, burning of the hair in curling, etc. There seems to be a certain predisposition to the disease in certain individuals. Trichonodosis is much more frequent than it apparently seemed in the beginning. There is a form of this disease, in which isolated hairs are found to have trichorrhexis, and also splitting of the hairs. Galewsky believes that the cause of the condition, is an unequal growth of the hair on the affected parts. Others, however, think that the disease is caused by a peculiar change in the structure of the hair.

On the Development, Growth, and Reproduction of the Short-Lived Hairs. THOMAS REID. (*Glasgow Medical Journal*, January, 1908, p. 1.)

The article consists of but three pages; sixteen photomicrographs, however, demonstrate the various stages in the growth of the hair. The mutual relations of the epiblast and the mesoblast is strikingly exemplified in the case of the hair. The cortex of the hair is derived from the

stratum corneum, with the addition of prolongations from the basement membrane. The medulla of the hair originates from the epithelial cap over the papilla. The first indication of the hair follicle in the human embryo is noted at the third or fourth month. Huxley's layer is not laid down until the cortex is completely formed; following this we have the formation of Henley's layer from the glia cells of the root sheath. The formation of the papilla and its investment by the epiblastic layers is essential to the growth of the hair in an upward direction, the medulla forming the central core which supports the enveloping cortex. The lanugo, or short-lived hairs, of the face were selected for the investigation, because the development, growth, and reproduction may be seen in the embryo.

A Case of Pseudo-Pelade of Brocq. GRAHAM LITTLE. (*Brit. Jour. Dermat.*, July, 1908, p. 231.)

Graham Little presented the case before the Dermatological Section of the Royal Society of Medicine. The patient was a female of twenty-eight; according to her history the hair started to fall five years ago. There was a family tendency. The vertex of the scalp is the principal seat of the disease, and for an area, three by five inches, there is a bald expanse, with some few isolated, long and apparently normal hairs; but with unusually deep infundibula of the follicle. The patch is irregular in contour, with small, round, bare spots joining the same. The hair can be readily pulled out without having the root sheath adherent to the bulb; the hairs extracted in this way were cut into fine pieces and planted on agar and serum respectively; no growth was produced in forty-eight hours.

A Contribution to the Comparative Pathology of Alopecia. JULIUS HELLER. (*Dermatologische Zeitschrift*, 1908, p. 417.)

In Heller's paper, the comparative study of alopecia in mankind and in animals is extensively discussed. Various headings are used to systematize the long and elaborate study; congenital alopecia; acquired alopecia; universal symptomatic alopecia; alopecia arising from gastric conditions; from diseases associated with fever, lymphatic, respiratory, and circulatory conditions; seborrhœic alopecia, alopecia areata; alopecia from changes and diseases of the nervous system. The hair fall in men and in animals is a physiological phenomenon. In healthy men there is a continuous hair fall, but there is a sufficient compensating growth to take its place; when there is insufficient compensation alopecia is noted. During certain times or periods the falling of the hair and the compensation is intensified. In animals there is a hair change in the spring and the autumn; this change is more marked in the wild than in the domestic animals. Complete hair fall, excepting of the long hairs (tail, mane),

occurs in the horse each spring. Animals during the hair losing period may be indisposed; as may also be birds during the moulting season. The hair fall is caused by the loosening of the hair from the papilla. Congenital alopecia is noticed in birds, hens, turkeys, pigeons, parrots, canaries, rats, and domestic animals. In animals with this congenital hair loss, the parents may be normal, or affected in a like manner. This alopecia may continue during life or the normal hair may develop. The pathological anatomy of congenital hypotrichosis is very complicated; the hair papillæ and the sebaceous glands are very scantily developed in cattle, and the sweat glands are missing. Investigations have also been carried out on a goat, rabbit, and lamb, all of which were hairless. The author concludes from these experiments that the hypotrichosis lay only in part upon the diminished hair growth. He found that most of the hair does not pierce the epidermis, because the latter is too thick, and is covered by an abnormally resistant horny layer. A part of the hair, therefore, because of the resistance grows parallel to the hairy surface. But slight changes were found in the papillæ of the hairs. A part of the hair appeared thinner than normal, there was an increase in pigmentation, and it appeared like a horny rope. Universal alopecia gives a more favorable prognosis in animals than in man. Symptomatic alopecia is of frequent occurrence in animals. A great many diseases in animals are accompanied by a profuse hair fall; much more marked than in man. This is noticed particularly in apes, antelopes, lions, and tigers. Analogous to the post-typhoid alopecia found in man is the loss of hair from gastric conditions found in the animal. The resemblance is drawn between the hair loss in various fever diseases in the animal and in mankind. Cases are cited of alopecia resulting from lymphatic, respiratory, and circulatory conditions. Microscopic anatomy helps but little in solving the problem. There is an absence of all inflammatory symptoms; the hair is but little pigmented, and very fine. The outer root sheath is frequently present without the hair shaft; the empty hair pocket is seldom filled with a growth of horny cells. Careful investigations were carried on in order to determine if the pigment changes had anything to do with the hair fall. The seborrhœic form of alopecia occurs with great severity in animals. Alopecia areata is more marked and more frequently universal in animals than in man; the horse is most frequently attacked. Alopecia is frequently noticed in nervous conditions in animals. It is suggested that changes in the peripheral nerve to the hair may be the cause. Diseases of the hoofs and the hair are found combined in a fair proportion of cases. Experimental severing of nerves has caused an alopecia. Various drugs have also had the same result; thallium acetate, and wild tamarinds. Chemical and bacteriological causes are also referred to; vegetable poisons, food stuffs, and numerous other articles are referred to as being causal in certain cases.

The Physiological Nail-Line in Infants. B. SCHICK. (*Jahrbuch für Kinderheilkunde*, 1908, p. 146.)

The author calls attention to a physiological line which may be found on the nails of infants; this line was present in 255 out of 258 children examined. The nails remain unchanged until the beginning of the fifth week of life; toward the end of the fifth week, there appears, first upon the thumb, soon afterward on the fingers, a faint arch-shaped line, that in a few days becomes more distinct; this line has its convex edge toward the free end of the nail, and passes across the same. With the growth of the nail this line slowly grows forward, keeping its convex shape. The nail is normal excepting for this line. Around the sixtieth day the line has reached the middle of the nail, by the ninetieth it is at the free edge of the same. The line on the thumb is probably one millimeter farther advanced than on the other nails; there may also be a slight difference in the individual fingers. Similar lines are found on the toes, but the changes are not so constant. After careful observation the following measurements are approximately accurate; from the 30th to 39th day the line extends 0.5 mm., beyond the root of the nail; 40th to 49th day it extends 1.4 mm.; 50th to 59th day it extends 2.3 mm.; 60th to 69th day 3.0 mm.; 70 to 79th day 3.3 mm.; 80th to 89 day 3.6 mm.; 90th to 106th day 4.2 mm. As the average of the nail line was found to be so constant, the age of the infant can be calculated from the same; a child with a line on the nail, standing one millimeter must certainly be older than twenty-eight days, and in all probability it is not older than nine weeks; if the distance is two millimeters the child is not less than seven weeks and probably not older than twelve weeks; if three millimeters, the child is not less than eight weeks and probably not older than twelve weeks; if four millimeters, the age of the child is not less than eight weeks; if five millimeters the age of the child is not less than ten weeks. General lowered nutrition of the body produces its effect on the line, causing a later appearance, a slower growth, or the absence of the same. In only three cases were the lines on the nails not certainly present, two were infants of premature birth, and the other was a marasmic. In certain cases in order to make the line more distinct, ink may be spread on the nail; thus bringing out the indentations on the upper layer of the same. It is believed that the cause is a derangement of the epithelium of the germ layer of the nail root; the symmetrical growth being for a short time interrupted. The lines on the nails are not seen until the fourth or fifth week, because they are covered by the nail wall, and are not visible until they are shoved forward by the aftergrowing nail. The line may be markedly present in syphilis, following scarlet fever, and also measles. The line may be seen in adults after typhoid fever, scarlatina, pneumonia, etc.

Two cases of pseudo-pelade of Brocq have been presented to the Dermatological Section of the Royal Society of Medicine, during last

year; the one was exhibited by Whitfield (*British Journal of Dermatology*, 1908, p. 94), and the other by Graham Little (*British Journal of Dermatology*, 1908, p. 194). These cases exhibited the usual characteristics of the condition.

SERUM DIAGNOSIS

By HOMER F. SWIFT, M. D.

A Simple Method of Serum Diagnosis of Syphilis. A. FLEMING. (*Lancet*, 1909, clxvi, p. 1513.)

The article opens with a discussion of the principles of the Wassermann reaction, and continues with the simplifications of Bauer and Hecht. The first named takes advantage of the fact that many human sera are hæmolytic for sheep cells, this eliminates the necessity of having hæmolytic serum from an immunized rabbit for the test. Hecht goes one step farther and uses the complement present in human serum instead of that in the serum of a normal guinea pig, so that a suspected serum is made to furnish complement, hæmolysin and syphilitic immune body, if this is present. As Hecht's technic requires rather a large quantity of serum, Fleming renders it easier of application by using a much smaller amount. The materials needed are: 1st, antigen, made by grinding 1 gm. of guinea pig heart in 5 c.c. of alcohol, heating to 60° C., filtering and standardizing by testing with a known syphilitic serum; 2nd, patient's serum collected in opsonic tubes; 3rd, a 10% suspension of the sheep's cells, washed three times. One volume of serum is mixed with the antigen and incubated, then one volume of the cell suspension is added and the mixture again incubated. Inhibition of hæmolysis is regarded as positive. A control tube without antigen is supposed to show hæmolysis. Some sera which are not hæmolytic to sheep cells have to be specially modified. While the results reported show a very high per cent. of positive reactions in syphilis, still certain classes of controls give quite too high a number of positive reactions. Of 131 cases of tuberculosis, 3 were positive, 1 out of 22 cases of staphylococcus infection, 2 in 5 of gonorrhœa, 2 of leprosy and 2 out of 36 miscellaneous diseases gave a positive reaction.

The Influence of Specific Therapy on the Wassermann Reaction.

R. PURCKHAUER. (*Münch. med. Wochenschr.*, 1909, lvi, p. 698.)

This report, from Neisser's clinic at Breslau, is an effort to determine the exact status of the question. Pürckhauer mentions that with the exception of sera from a few cases of scarlet fever, leprosy and fram-bæsia, the reaction is specific for syphilis. After a review of the literature on the subject, and giving the standard of treatment, he divides the cases into two classes: (A) Those in which only one reaction was tried. (B) Those in which more than one test was made.

(A) Of 124 cases of syphilis with symptoms in all stages and regardless of previous treatment, 82% were positive. Of the cases with from one to eight courses of treatment it is shown that the percentage of negative reactions increases with the number of courses. Of 12 cases of leucoplakia, 10 gave positive reactions. The author says that although up to this time he has regarded leucoplakia as latent syphilis, in the light of these findings he will have to regard them as active cases.

(B) There is a table showing the reaction before and after treatment, the number of courses being from one to twelve. The summary of this table is:

Stage.	No. of cases positive before treatment.	% positive after treatment.	% negative after treatment.
Primary and secondary.	116	35%	65%
Tertiary	18	91%	9%
Cerebral	4	75%	25%
Latent, early	12	67%	33%
Latent, late	15	73%	27%

The influence of treatment is more marked in the early stages of the disease, both active and latent, but late latent cases that give the reaction can be made to yield by vigorous treatment. The figures also show that in relapses the reaction generally reappears, and that the better the cases have been treated the more often is the reaction negative. In 54 latent cases with from one to four courses of treatment, 68½% were negative and in 23 latent cases with over four courses, 82½% were negative. Next a table is given, showing cases that have had a number of tests made. In some of these the reaction remained negative, in some it became positive under treatment and again negative, and some continued positive. The author thinks that treatment should not be discontinued because of one negative reaction, but only after several have been obtained.

In considering the question of chronic intermittent treatment controlled by the serum reaction he hopes in the light of a richer clinical experience that two classes of cases may be made.

1st. Those that give a positive reaction, and after treatment react negatively, and continue thus. In these the treatment may be stopped.
2nd. Those that continue positive or that become positive after being negative, should be considered stubborn cases and treated accordingly.

The Importance of the Wassermann Reaction in Practice. A. NEISSER, (*Münch. med. Wochenschr.*, 1909, lvi, p. 1076.)

Neisser in a short note answers an attack of C. Kopp against the Wassermann reaction (*Münch. med. Wochenschr.*, 1909, lvi, p. 957). In spite of the theoretical doubts as to the nature of the reaction, and the fact that it does not give 100% positive results, he considers the reaction

so important that he would not be without it at any price. In innumerable cases it gives a clear picture of the condition where older methods fail, and often a diagnosis is possible where a clear history or spirochæta findings are wanting. A positive reaction to Neisser is a definite symptom of active syphilis and an indication for further treatment, and repeated negative reactions give a very favorable prognosis. The serum reaction in most cases gives a certainty in treatment that no previous clinical method yielded. Naturally it is foolish to curtail treatment on the evidence of a negative reaction alone, but it is still more wrong to deprive a patient of the benefit of the method because it is not absolutely perfect. The grounds for the statements are based on a daily use of the method almost since its discovery, and Neisser says that he would as soon treat urethritis without a microscopic examination of the secretion for gonococci, as syphilis without the serum reaction.

Scarlet Fever and the Wassermann Reaction. W. HOLZMANN. (*Munch. med. Wochenschr.*, 1909, lvi, p. 715.)

This is a report of a case of a girl sixteen years old, who was brought to the hospital in coma and convulsions, with a diagnosis of epilepsy and sore throat. The urine showed an acute nephritis. The patient was bled and a Wassermann reaction made and found positive. A history from the mother gave no evidence of syphilis, but ten days previous a rash like scarlet fever was present. Two weeks later typical desquamation appeared on the hands and feet. As the patient improved three more tests were made, the inhibition became gradually weaker until one month after admission the reaction was negative. The author then calls attention to a number of cases in the literature where positive reactions were obtained in scarlet fever, but says that the difference between the two diseases is that in scarlet the reaction becomes weaker, while in syphilis it persists.

The Serum Reaction in Leprosy. C. BRUCK and E. GESSNER. (*Berliner klin. Wochenschr.*, 1909, xlv, p. 589.)

The authors give their results in the study of ten cases of leprosy with the Wassermann reaction. Seven of the patients had the tubercular type and three the maculo-anæsthetic manifestation of the disease. Five of the sera gave a positive reaction, and five were negative. The five positive sera were all from the tubercular type of patients. In all of them the possibility of syphilis could be fairly well eliminated, and the reactions were always done with two or more antigens and controlled with positive syphilitic sera. Reference is made to a number of positive findings by other observers, the positive reactions usually occurring in the tubercular type of the disease. The points of similarity in the two diseases are discussed and the possibility mentioned that the complement binding substance may be the same in both cases.

BOOK REVIEWS.

Diseases and Surgery of the Genito-Urinary System. By FRANCIS S. WATSON, M. D., Senior Visiting Surgeon to the Boston City Hospital, Lecturer on Genito-Urinary Surgery, Harvard Medical School; and JOHN H. CUNNINGHAM, JR., M. D., Visiting Surgeon to the Long Island Hospital, Boston; Assistant Visiting Surgeon to the Boston City Hospital. 2 volumes, 1101 pages. 454 engravings and 47 colored plates. Philadelphia and New York; *Lea and Febiger*, 1908.

This work in two volumes is intended to cover the diseases of the genito-urinary system, both from a medical and surgical standpoint, but there is a decided tendency to give the surgical aspect the chief place. Volume I deals with the diseases of the external genitals, prostate, and bladder, volume II with the kidneys and ureters, ending with a chapter covering the subject of tuberculosis of the entire genito-urinary system. The arrangement of the subject matter is very systematic and in some ways original for text-books. The statistical tables are quite extensive, and illustrative cases are placed at the end of the chapters so that the general discussion is not broken by mention of cases. The medical treatment is usually brief, and the surgical treatment is fully discussed in separate chapters. The more important operations are minutely described and each is well illustrated. Only a brief reference is made to the subject of syphilis, but it seems that the finding of *spirochætæ pallida* and the Wassermann reaction should be mentioned as differential points between chancre, chancroids and herpes progenitalis. Under the treatment of gonorrhœal rheumatism no mention is made of the use of vaccines or serum as therapeutic measures, and under tuberculosis there is no discussion of tuberculin treatment. The volumes are well printed, the illustrations above the average, and add much to the value of the books. The work is essentially one of reference, and deserves a place in the library of every one interested in the subject.

H. S.

Syphilis und Nervensystem, Neunzehn Vorlesungen für praktische Aerzte, Neurologen und Syphilodologen. Von Dr. MAX NONNE (Hamburg), Zweite, vermehrte und erweiterte Auflage, mit 97 Abbildungen im Text. Berlin, 1909, *Verlag von S. Karger* Karlstrasse 15. (Price 20 marks.)

It would be quite impossible in a short book review to do complete justice to this second edition of Dr. Nonne's most excellent work. The six years which have elapsed since the appearance of the first edition of this work have been marked by three great contributions to our knowledge of syphilis, namely, the discovery of the *spirochætæ pallida*, the building up of the cytodiagnosis of the spinal fluid and finally the serum diagnosis of syphilis. The especial bearing of these new discoveries to the theme of syphilis and the nervous system is obvious, and the new edition of Nonne's work is adequately enriched by the clear exposition of these subjects. The subject matter is presented in the form of nineteen lectures, and each division of the subject is most thoroughly presented together with its literature and history, enriched with the histories of cases from the author's large hospital and private practice. In order, the lectures are as follows:

I. General, ætiology and diagnosis.

II. Pathological anatomy of nerve-syphilis.

IIIa. *Ætiology of lues of the nervous system.*

IIIb. *Arterial form of brain syphilis.*

IV. *Symptomatology of syphilitic meningitis of the convexity of the brain.*

V. *Symptomatology of syphilitic disease of the base of the brain, optic nerve, chiasma and tractus opticus.*

VI. *Symptomatology of syphilitic disease of the base of the brain (continued); Eye muscle paralysis.*

VII. *Symptomatology of syphilitic disease of the base of the brain (continued); Differential diagnosis of eye muscle paralysis in brain syphilis; Prognosis of brain syphilis.*

VIII. *Psychoses and neuroses in syphilitics and in brain syphilis.*

IX. *Relation of dementia paralytica to syphilis; Differential diagnosis of dementia paralytica.*

X. *Syphilis of the spinal cord. Spinal meningitis.*

XI. *Syphilis of the spinal cord; Meningo-myelitis; Paralysis spinalis syphilitica. (Erb.)*

XII. *Myelitis acuta, acute ascending paralysis; Symptoms of poliomyelitis, syringomyelia, Brown-Sequard paralysis, multiple sclerosis, combined column disease.*

XIII. *Tabes-syphilis teachings; Atypical tabes dorsalis; Pseudo-tabes syphilitica; Differential diagnosis of spinal cord lues; Prognosis of spinal cord lues.*

XV. *Syphilitic diseases of the peripheral nerves.*

XVI. *Hereditary syphilis and the nervous system.*

XVII. *Therapy.*

XVIII. *The cytodiagnosis and examination of the spinal fluid for increase of albumin.*

XIX. *The complement deviation reaction.*

One must certainly be struck by the orderly arrangement of the chapters, and by the completeness of the subject as a whole. Of especial interest to the American reader is the clearness of the construction and the interesting manner of presentation; too often the valuable German works make difficult reading, even for one versed in the language, because of the heavy ponderous construction. Dr. Nonne's book on the other hand, reads easily, almost as though one were listening to a lecture instead of reading one. The paragraphing, with marginal heading for each paragraph, is an ingenious device for saving time when consulting the work for reference. Mention must also be made of the clear wood-cuts, all of which without being ornate, are distinct pictures of the lesions which they are designed to show.

After a most thorough and enjoyable reading of this work, it is indeed a pleasure to give it hearty endorsement to the practitioner, the neurologist and the syphilologist, and to express the belief that in presenting his book to the profession, Dr. Nonne has given to the literature a classic study of syphilis in its relation to the nervous system.

U. J. W.

OBITUARY.

ERNEST BESNIER.

DR. E. BESNIER was born in Honfleur, on April 21, 1831, and died in Paris on May 15, 1909, in the seventy-ninth year of his life.

He was educated in medicine in Paris, being a hospital interne in 1853, and taking his degree in medicine in 1857. In 1863 he became one of the visiting physicians to the Paris hospitals. For the first ten years of his professional life he was engaged in the general practice of medicine, and gave much attention to the study of hygiene and epidemics, thus laying a broad foundation for his subsequent career. For some years he was the Secretary of the Société médicale des hôpitaux. It is notable that the subject of his graduation thesis was strangulation of the intestines, and that his early writings were on such subjects as epidemics, and the adulteration of food stuffs. These papers were of such a marked character that in 1880 he was elected a member of the French Academy of Medicine. During this period of his life he contributed many able articles to Dechambrés dictionnaire encyclopedique des sciences médicales.

In 1872, he became one of the physicians to the hôpital, St. Louis, and began his career as a dermatologist, which continued until his death. He was one of the founders of the *Annales de dermatologie et de syphiligraphie* and continued one of its staff during the remainder of his life. To it he contributed many original and valuable papers. In 1881, he with Doyon, edited the French translation of Kaposi's text-book on skin diseases, which was not simply a translation, but by its copious foot notes, presented the science from the French point of view. A second edition followed in due course of time.

He took an active part in the meetings of the French Dermatological Society. He was an enthusiastic teacher of his chosen specialty and had ever a large following of students. He was much beloved as a man and as a teacher. He greatly enriched our knowledge of dermatology by his acute observations, and made for himself an enviable name that is known in every civilized land. He died full of years, and crowned with many honors, that he fairly won.

G. T. J.

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THE INCREASE OF CERTAIN CONTAGIONS FOLLOWING THE GREAT FIRE IN SAN FRANCISCO.*

By DOUGLASS W. MONTGOMERY, M.D., and HOWARD MORROW, M.D.,
San Francisco.

IN the following paper we limit ourselves to the consideration of impetigo contagiosa, typhoid fever, and plague, because the behavior of these infections, following the Great Fire, showed some very interesting points in the ætiology and correlations of all three.

Until recently we considered impetigo contagiosa as being pre-eminently a disease of childhood, and a contact disease, and if a case in an adult was seen it was looked upon as exceptional. The number of male adults afflicted in this way became, however, so frequent, constituting for a time nearly half our cases, as to force itself on our attention, and finally we tabulated the histories of our patients beginning from May, 1906 to the end of June, 1908. Our cases run as follows:

No. of males	77
No. of females	45
	<hr/> 122

Children Under 14 years of age.	Adolescents from 14 to 21 yrs. of age.	Adults beyond 21 yrs. of age.
13.....males	9.....males	56.....males
14.....females	13.....females	17.....females
<hr/> 27	<hr/> 22	<hr/> 73

Instead of there being more children than adolescents and adults, there are ninety-five adolescents and adults, and only twenty-seven children. That is to say, these figures show three and one-half as many infections in the balance of life as in childhood. It

* Read before the 33d Annual Meeting of the American Dermatological Association, Philadelphia, June 3-5, 1909.

is not at all likely that these figures indicate the real relationship between adolescents, adults and children, for the children of the poor are very prone to the disease, and frequently are not taken to a doctor. The "scabby face" is allowed to get well spontaneously, which it usually does in the course of a few weeks. It is not our experience, however, that children in San Francisco are much afflicted with this disease, for even in the old clinic, which was in the midst of the poor quarter, there did not seem to be as many cases as one sees in other large cities. This would not be surprising, as impetigo contagiosa flourishes best in overcrowded and filthy quarters. The poor in San Francisco have never been as poor as in other cities, nor so overcrowded. The city, also, is breezy and cool and there is plenty of sunshine, so that whatever overcrowding exists is mitigated by the climate. Allowing for all this, however, the number of male adults having impetigo contagiosa is striking. In looking at the figures in regard to sexes, we find that in childhood the sexes are practically even (14-13); among adolescents there are more females than males (13-9), which probably represents the increased opportunities of infection due to the greater effusiveness of the female at this time of life as shown in kissing and petting children; while among adults there are more than three times as many males as females (56-17). Among females at the different periods of life the numbers run about even (14-13-17); while among males the adults show a notable increase above the children and adolescents constituting nearly one-half (56) of the entire number of cases (122). Two striking facts were noted here; that the increase of infection occurred among the members of the class that frequent barber shops, the adult males, and also the frequency with which impetigo contagiosa followed having been shaved in a barber shop.

The conditions in San Francisco in the fall of 1906 had, we think, much to do with the increase noted, as undoubtedly impetigo contagiosa flourishes best in filthy conditions. When we found that this contagious disease showed an increase, we thought it interesting to find if other contagious diseases acted in the same manner, and to our surprise a most interesting and logical state of affairs developed. The increase in impetigo was found to be coincident with an increase in typhoid fever, and practically coincident also with the development and increase in plague. From April, 1906, the time of the fire, to the end of December, 1906, a space of eight months, 1215 cases of typhoid fever were reported. Because

of the disturbed conditions many were unreported. During the following six months less than 200 cases developed, although inspection was much more strict. During all this time frequent examinations were made of the city water and milk supplies and all with negative results, so that the city authorities were forced to the conclusion that the spread of this disease was by flies in the same manner as shown by Reed, Vaughan and Shakespeare in their able investigations in the military camps during the Spanish War.

When we reflect that a city of half a million inhabitants was practically destroyed in two days, and over 100,000 people were compelled to live in temporary camps, it is not surprising that infectious diseases should thrive.

At first these camps were composed of tents and later of temporary shacks of two and three rooms. The public parks were crowded with these small structures. Besides these, hundreds of latrines were distributed in all parts of the city, and for a time were unscreened. The latrines and the camp kitchens formed breeding places for myriads of flies. In all these camps garbage was frequently thrown into the streets, or piled in obscure places. This favored the development of flies, and gave food to rats. Probably, however, the greatest factor in the propagation of the fly was the great increase in the number of horses used in rehabilitation, thereby increasing the amount of manure. This manure was only partly removed; in fact, for months it was not removed at all from the temporary stables.

Working on the theory that flies are responsible for the spread of the infectious diseases, the Board of Health ordered latrines removed and sanitary toilets installed. Kitchens were screened, garbage and manure were carefully removed, and a campaign of disinfection was conducted.

As a consequence of these sanitary measures, typhoid fever rapidly decreased, but was not entirely eliminated. To entirely eliminate typhoid fever, however, a more rigorous campaign of sanitation had to be instituted, and the immediate impulsion to this was furnished by the plague. While typhoid fever was so prevalent, it was noted by many surgeons that wounds showed an unusual tendency to suppurate.

The first reported case of plague after the fire, appeared in May, 1907, and up to February, 1908, one hundred and sixty cases were observed. Since February, 1908, no case of plague has been found. Such a surprisingly good result was accomplished by a

series of measures taken by the Marine Hospital Service that were so admirable as to form a model for all such work. The rat was the point of attack, as he, with his accompanying flea, was the bearer of plague. The rat had to be starved out, built out, and killed out. The care of all garbage was still more rigorously attended to than in the previous campaign against typhoid fever. Inspection was severe and in accordance with the will of the people. Buildings were rat-proofed with concrete floors, and poison and traps were used in the sewers. Typhoid fever and impetigo fell away instantly almost to nothing, and plague, as above noted, was wiped out.

As before mentioned, we conjectured that impetigo contagiosa must be a filth disease, and furthermore that in many instances it is a fly-borne disease, and not altogether a contact disease. As before remarked, wounds suppurated readily while the city was a disorganized camp, and this seems to us to be the key of the situation, and explains why so many of our patients believed they were infected in a barber shop. We can take it for granted that streptococci as well as typhoid bacilli were scattered abundantly over the whole city by flies, and wherever a wound occurred it was apt to be infected by the streptococci. Shaving is really a surgical operation, and occasions just the kind of superficial, unprotected abrasions so readily infectable by streptococci, and fully explains to our mind, the large number of adult males with impetigo contagiosa.

The coincident prevalence of plague, impetigo contagiosa, and typhoid fever is very interesting from an historical point of view. We are told of the sudden and tremendous mortality of the plague-stricken cities of mediæval Europe, and the equally sudden fall in this mortality. Plague itself we now know to be a persistent, slow-going disease as regards its presence in a city, but the coincidence of typhoid fever would explain both the quick, heavy death rate, and the sudden cessation of the epidemic. There is still another feature of mediæval plague that we think remains unexplained up to the present. To add to the horrors of the disease it is depicted as being accompanied by frightful eruptions, as for example in mediæval Florence. We would suggest that the eruptions were due not to the plague or to typhoid fever, in which the eruptions are insignificant, but to streptococcic infection causing impetigo, bullous impetigo, pemphigus neonatorum, and ecthyma.

ACUTE SEPTIC PEMPHIGUS *

By JOSEPH GRINDON, M. D., St. Louis.

CASE. B. F. R., a farmer, aged thirty-three, consulted Dr. W. E. Angell, of Rocheport, Mo., on June 22, 1907, for a bullous eruption which had then existed one week. There was nothing especially noteworthy about his family or previous personal history. He was a man of average build, accustomed to hard work in the open air, and had generally enjoyed good health. There was no history of any recent wound or abrasion, nor had he recently been vaccinated. His occupation, however, brought him into constant contact with cattle and other animals, and it may easily be believed that a man so employed might allow a slight traumatism to pass unnoticed. If any such break of the surface occurred, there was at no time any such local reaction as would have fastened itself upon his memory.

At the time of this first visit "There were," Dr. Angell wrote me, "ten or twelve large white blisters on the abdomen, about the umbilicus, five or six of which had broken. Around some of these large blisters small ones were forming. Others extended around the right flank to the back. This looked something like zoster, but there was no pain and no fever." The Doctor prescribed a protective application, with a purgative and a tonic.

The patient returned on June 28 and reported himself worse. "There were at this time from a hundred to a hundred and fifty blebs, including some on the face and hands. Lesions had appeared inside the mouth." The Doctor advised that a specialist be consulted, but this advice was not followed.

The patient was next seen a fortnight later, on July 12. "He came to my (Dr. Angell's) office sore all over, and much discouraged." On August 3 he sent for the Doctor to visit him. He was gradually growing worse. The presence of fever was noted for the first time on this occasion.

* Read before the 33d Annual Meeting of the American Dermatological Association, Philadelphia, June 3-5, 1909.

Finally he was persuaded to come to St. Louis for treatment, and on August 16 entered the Washington University Hospital, having been kindly referred to me by Dr. Robert H. Davis, to whom he was first taken, Dr. Hardaway, who was at first selected to take charge of the case, being away on his summer vacation. The patient was in much discomfort and at times in pain from the numerous large raw areas plentifully distributed over his surface. There were blebs and excoriations about the eyelids, the conjunctivæ were injected, the lips were crusted and bleeding, while the palate, buccal mucous surfaces and tongue presented several approximately circular denuded areas with loose epithelium hanging about them at various points, making eating and drinking painful. The entire surface of the body was thickly strewn with denuded areas and bullæ, presenting a more or less circinate arrangement and quite symmetrically distributed. At a number of points a circular, continuous, unilocular bleb, or again a similarly shaped denuded area, enclosed a disk of intact epidermis. Some of these enclosed disks, as on the back, were nearly four inches in diameter, the total diameter of the bullous ring being perhaps twice that. Others were smaller. At some points a large central bulla was surrounded by smaller satellite lesions, as often seen in dermatitis herpetiformis. Elsewhere were some single isolated bullæ. While the satellite lesions did not continue, the annular elements persisted to the end. The conformation of the lesions, taken together with their large size, was unique in my experience, but at the same time led me at first to consider a diagnosis of dermatitis herpetiformis, and again of herpes iris, the resemblance to the latter being heightened by the crusted lips and soft and bleeding gums. In spite of the extensive skin and mucous membrane involvement above detailed, with their attendant suffering, the patient's general condition was fairly good, and his bodily functions normally performed. On admission, at noon, his temperature was 100° F., pulse 98 and respiration 20. He was put to bed and dressed with a bland liniment, salicin being ordered internally.

Blood examination, August 16, 1907:

Erythrocytes	6,400,000
Leucocytes	4,600
Eosinophiles	10%
Hæmoglobin index	a/10

Urinalysis, August 17, 1907:

Color—pale amber.

Reaction—acid, sp. gr., 1014.

Albumin—none.

Sugar—none.

Urea—21 gm. per liter.

Indican—normal.

Microscopical examination—negative.

A second examination of the urine two days later gave negative results throughout.

On the same day, August 19, the white cells showed on differential count:

Small mononuclears	8%
Large mononuclears	2.3%
Transitional	1.5%
Neutrophile polymorphonuclears	68%
Eosinophiles	19.3%
Mast cells	1%

For the first four days the pulse, temperature and respiration showed no marked changes, the morning temperature ranging between 98° and 99.2° , and the evening records from 98.8° to 100.6° . The pulse varied a little above and below 100, while the respirations were at or near the normal, once only, in the evening, rising to 28. On the morning of the fifth day, the patient being in much pain, he was transferred to a continuous bath of a tepid normal saline solution. Within a few hours thereafter the temperature rose to 102.4° and the pulse to 120, but both by evening again dropped, the temperature from then on to the end continuing at about the normal (minimum 97.8° , maximum, 99°). The pulse continued between 92 and 106 until the morning of the twenty-fourth, when it rose to 120, varying between that and 110 for the next twenty-four hours, while the respiration continued at 22 or 24.

On the morning of the sixth day in the hospital the patient complained of nausea, which symptom persisted for the most part to the end. He partook of very little food, and slept only in short naps. His sufferings became more and more intense and his condition pitiable in the extreme. After thirty-six hours in the bath, he begged piteously to be taken out, but soon after being dressed with the oily application and placed in bed, he asked to be returned to the water. While he endured less pain in the latter situation, he complained bitterly of cold, despite the fact that the

bath was kept constantly warm and that the weather was very hot. During the last few days he was moved every few hours at his request, from the bath to his bed, and back.

Meanwhile new blebs appeared, while the older ones undermined the epidermis at their edges, thus greatly increasing in size. The circular contour, however, was for the most part preserved and the annular configuration at many points as well. The detachment of epidermis was marked about the muco-cutaneous junctures, the eyes being surrounded by wide denuded areas, as were the nose and mouth (Fig. 1). The front of the neck presented a bulla three inches in diameter, with smaller ones at the sides and back. The abdomen and lower part of chest presented a peculiar worm-eaten appearance due to the confluence of many rings, leaving within and between them irregular and bizarre patches of normal skin perhaps best described by the word "ragged." (Fig. 2). On the back the lesions were fewer but larger, huge circinate vesiculated areas being seated over each scapula, the lower dorsal spine, the sacrum and to the right and left about the waist-line (Fig. 3). The axillæ were enclosed anteriorly and posteriorly by rings, each formed of a continuous bulla enclosing sound skin, the bullæ continuing down the anterior aspect of the arm and upper third of the forearm as an unbroken band of varying width, but averaging about one inch. The posterior aspects of the arms showed broader patches, with an especially perfect ring below the left elbow. (Fig. 3). About the genital region were large rings made up of gyrate lesions, their convexity outwards. These extended over the inguinal regions and thighs. Other large patches occupied the inner aspects of the thighs and the popliteal spaces with smaller lesions over the legs and feet.

The circinate configuration of the lesions is strikingly shown in Figure 4, depicting the left hip and flank. Here, as well as in the full-length figures, one can see how at many points a second—sometimes nearly concentric—ringed lesion appeared within the first, like a ten-fold magnified herpes iris. On the whole the upper half of the body was much more extensively involved than the lower. The puffy and wrinkled appearance of the palms seen in the picture is due to long immersion. These pictures, being taken post-mortem, show only denuded areas, the bullæ being destroyed.

On the twenty-fourth the patient became quietly delirious, without rise of temperature. That evening he vomited some brown blood. The delirium gave way to unconsciousness, toward evening

the pulse disappeared, and the patient died at nine p. m., nine days after admission. The record at four p. m., showed: temperature 98°, pulse 100, respiration 22. During the last four days there had been a few liquid stools, but never a diarrhœa. The twenty-four hour urine was, for observed periods, 26, 26, 27 and 38 ounces. During the rest of the time, much of it was passed in the bath.

The total duration of the case was from June 15 to August 25, ten weeks. Post-mortem not allowed.

I once observed a similar annular configuration in the early stage of a chronic pemphigus. The patient was a girl of seventeen, seen with Dr. L. C. Huelsmann in December of 1907. There had been for some weeks an eruption of large isolated bullæ, for the most part as ordinarily seen in pemphigus vulgaris. A few, however, showed some tendency to ring formation, while on the right hip there was one perfectly annular bulla, about three inches in diameter, enclosing a disk of sound skin one inch across. The case soon passed into other hands, but I learn that she still has frequent crops of blisters.

It would seem therefore that there exist true cases of pemphigus circinatus, although it is probably best not to employ that term, not only to avoid a multiplication of names based on unessential details, but because the term was one of those long employed to designate what we now recognize as dermatitis herpetiformis. That the case first detailed was not of the latter sort seems obvious, in spite of its possessing the characters of symmetry and the annular configuration. Besides the continuous course and early fatal termination, there were absence of polymorphism and of pruritus. In this connection I would refer to a statement made by Hartzell in the discussion of Bowen's¹ paper four years ago, that he had seen cases bullous throughout, with ring-shaped lesions spreading at their margins, frequently with involvement of mucous surfaces and in some cases with a fatal issue. "The mere fact that the bullæ showed a certain arrangement, did not indicate that the case was one of dermatitis herpetiformis rather than pemphigus, and he regarded these as belonging to the latter disease." Duhring himself says: "Occasionally the lesions assume a circinate arrangement (pemphigus circinatus), as in herpes iris; in other cases a marginate or serpiginous form." He adds, however, "Such cases are generally examples of erythema multiforme bullosum." In this connec-

¹ "The Classification of Bullous Diseases." *Tr. Am. Dermat. Assn.*, 1905, p. 124.

tion I would refer to Jarisch's fatal case of herpes iris quoted by A. Weyl.²

Nor can I accept the notion that eosinophilia establishes the diagnosis of dermatitis herpetiformis as against that of septic pemphigus. While eosinophilia has been absent in some recorded cases of the latter disease, the diagnosis must rest on the ensemble of symptoms and not on the blood-findings alone. Our conception of what the blood-findings should be must if necessary be modified to fit the facts, and not the facts to fit our conceptions.

As germane to the subject, I also here present two views (Figs. 5 and 6) of a rapidly fatal septic pemphigus seen at the St. Louis City Hospital, presenting spreading bullæ (ruptured, in the picture) with lesions about the eyes, lips, and in the mouth. The patient spoke Hungarian only, so that little history could be obtained. There was a wound above the right mastoid which might have been the avenue of infection. Dr. Engman, into whose hands the case passed soon after I saw it, informs me that it terminated fatally after a total duration of six weeks. The lesions showed no annular arrangement when I saw them.

Fatal bullous impetigo, as reported by Corlett, myself and others is limited to very young infants, does not involve the oral mucosa, shows no especial predilection for muco-cutaneous junctures, and often furnishes a history of infection from impetigo of the usual type. I can use almost exactly the language of Bowen,³ "I have seen in the same family, impetigo contagiosa in its typical form affecting several of the older children"—in my case the father and a nurse as well—"while the infant of the household presented a well marked bullous eruption, similar to that described as pemphigus neonatorum."—(In my case rapidly fatal.) Besides, the rare cases of bullous impetigo in adults,⁴ which are more suitable for comparison with the disease under discussion than are the infantile cases, present a picture and pursue a course which has little in common with acute pemphigus besides the presence of bullæ.

At the same time, there is no reason, as Dr. Stelwagon on a former occasion remarked, why we should conclude that all fatal or serious cases of infectious bullous disease in children are impetigo. Some of them may have been true cases of acute septic pemphigus. The Whitley Stokes cases among Irish children ap-

² Ziemssen's Handb. Skin Dis., Am. ed., p. 266.

³ "The Classification of Bullous Diseases." *Tr. Am. Dermat. Assn.*, 1905, p. 125.

⁴ Grindon, *Jour. Cutan. and Gen. Urin. Dis.*, 1901, p. 188.



Fig. 1.

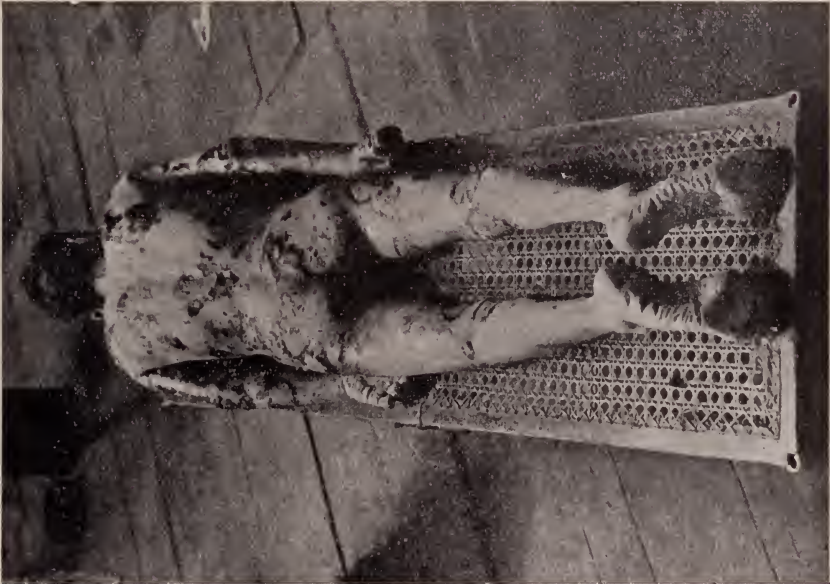


Fig. 3.

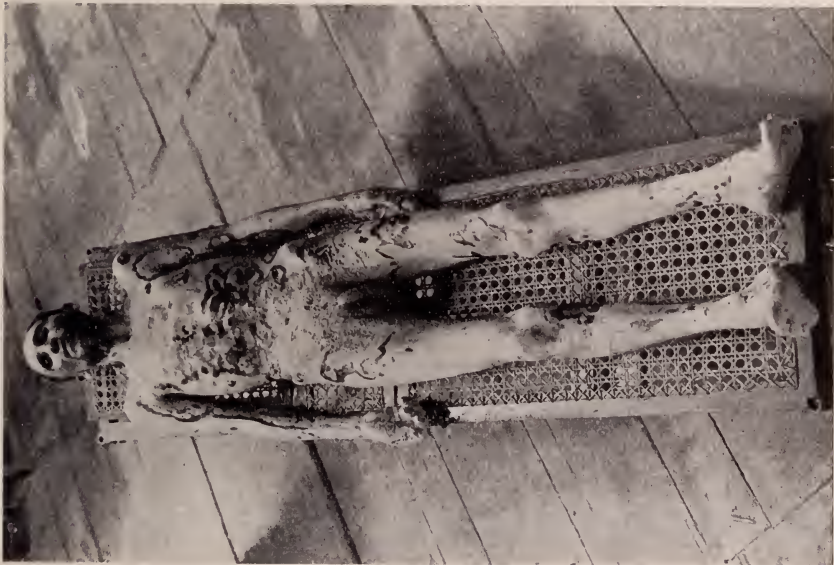


Fig. 2.



Fig. 4.

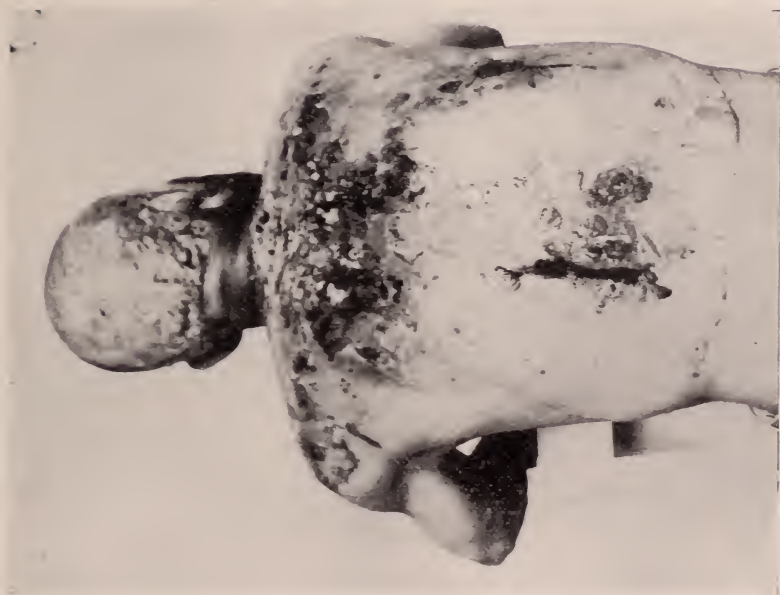


Fig. 6.



Fig. 5.

parently belonged to neither of these classes, and like those observed at the General Lying-in Hospital by Tilbury Fox, were probably cases of dermatitis gangrænosa infantum.

Of the acute septic type of pemphigus we now know a number of cases presenting sufficient uniformity and constancy to type to constitute a perfectly well-outlined clinical entity. This is the Pernet-Bulloch type, with which we may class Howe's ten post-vaccinal cases, the cases collected by Bowen,⁵ and a number of others scattered throughout the literature under various names. Bowen's ingenious speculation of the identity of septic pemphigus with the foot and mouth disease of cattle finds support in a recent striking report of the Bureau of Animal Industry⁶ on an epidemic of the latter disease traced to the use of infected vaccine virus. The bearing of this discovery on the ætiology of post-vaccinal pemphigus is sufficiently obvious.

⁵ *Jour. Cutan. Dis.*, June, 1904.

⁶ *Abstr. Jour. Am. Med. Assn.*, May 22, 1909, p. 1679.

CASES OF BROMIDE ERUPTION MISTAKEN FOR BLASTOMYCOSIS *

BY OLIVER S. ORMSBY, M. D., Chicago.

MY attention was first attracted to this subject in the winter of 1906 and 1907, when at the request of Dr. J. A. Churchill, house physician at the County Hospital, I visited a patient supposed to be suffering with blastomycosis. I immediately noted the similarity of the cutaneous symptoms present to those of blastomycosis but viewed the case as one of bromide exanthem. My suspicions were confirmed on learning that the patient was the subject of epilepsy and was under treatment for this disorder. With the house physician I searched for blastomyces without result. The matter then passed from my attention until with Dr. Montgomery, I saw a second case. At this time I described my former experience at the County Hospital. Finally, when another case appeared in the private practice of Dr. Hyde, the similarity of the group was so evident that the conclusions, with which Dr. Hyde concurs, presented in this paper were arrived at. The type of lesion produced by ingestion of the bromides described here is not new. It has been described and portrayed in photograph, plate and

* Read before the 33d Annual Meeting of the American Dermatological Association, Philadelphia, June 3-5, 1909.

written description many times. The literature on the subject is extensive, but it would not be of special value to cite this in detail here as the facts are well recognized. The lesions occurring in the patients described in this report belong to the plaque or condyloma-form type and, as is usual in this type, occurred chiefly on the lower extremities. These lesions usually are slower undergoing resolution than those of the ordinary acneiform type, situated as a rule on the face, shoulders, back and upper part of the chest. The condyloma-form variety is described among the rarer manifestations of bromide exanthems and occurs more often in infants and young children, being usually limited to the extremities and the face. Young adults are, however, comparatively frequently attacked and the lesions may undergo ulceration with subsequent atrophy and superficial scar-formation. These lesions have a tendency to develop in old scars and many have been described as beginning in such areas.

The plaques which are rare as distinguished from the discrete papulo-pustular lesions which are common, may be considered as confluent lesions, and their determination to the sites elected may be explained by the increased vascularity of the parts due to position and exposure to external irritants such as trauma and greater temperature changes. Engman and Mook¹ have called attention to these factors in the elucidation of a "rational theory" for the production of drug eruptions.

The first two of the cases described here were considered examples of blastomycosis by competent observers. This was especially true of the second case as the diagnosis was made by two gentlemen who had seen many patients affected with blastomycosis and had published reports of the disease. My reason, therefore, for describing these cases at this time is to emphasize the fact that there are certain eruptions due to the ingestion of the salts of bromine which are clinically almost indistinguishable from blastomycosis.

Case 1. This patient was a boy, aged sixteen years, who entered the County Hospital in the service of Dr. Goodkind, in the winter of 1906. The examining-room diagnosis was recorded blastomycosis. Epilepsy was not mentioned, but I take it that the fact was noted as the patient was assigned to a medical ward by these physicians. The following history and description of symptoms is copied from the hospital record made by the house physician:

Family and past personal history, negative. The patient had

¹ Engman, M. F., and Mook, W. H.; *Jour. Cutan. Dis.*, 1906; xxix, pp. 502-509. "A Contribution to the Histopathology and the Theory of Drug Eruptions."

always lived in Chicago. General examination: the boy was fairly well developed and sixteen years of age. No findings relative to internal organs were noted. Aside from the history of convulsions, the only symptoms present were referable to the skin. The urine was normal. The history states that six or seven months previously the patient began to have fits. These seizures occurred during the night as a rule, but an occasional one happened in the daytime.

The lesions began one year previously on the posterior surface of the arm as small papules, which soon became pustular and spread with crust formation, which healed and left atrophic areas. Similar lesions next appeared on the legs below the knees where they spread until the whole of both legs became involved. In addition to the above areas, lesions were described as follows:

On the forehead a few papules, brownish-red in color, also some scars; over the back and shoulders some papules and pigmented scars, similar to those on the forehead; over the dorsal surface of the right hand was a large reddish-brown scar, irregular in outline, with a few pustules and papules dotted over its surface and an occasional crust; on the back of the right arm, a brownish-red scar entirely healed; on the right forearm, a few scaly papules and pustules; on the posterior surface of the forearm was a raised patch the size of a silver dollar covered with a crust; on the left forearm, a few papules and pustules; on both legs, reddish-brown raised areas encircling both legs in an irregular outline in which an occasional papule or pustule occurred with also a few crusts. The whole area was covered with a white ointment which had been applied by the patient. On both thighs and over the gluteal region were a few scattered papules and pustules.

While in the hospital, the patient was given potassium iodide and the bromides as well as Fowler's solution. During his first sojourn (fifty days) he had several convulsions. They lasted from three to seven minutes and were typical. He was discharged from the hospital for insubordination with his physical condition somewhat improved. Eight days later he was readmitted. The cutaneous manifestations were somewhat worse. During his next period in the hospital, he had five convulsions which were similar to those previously recorded. One of these, however, lasted ten minutes. During this period he was treated in the same manner as before. After three months he was transferred to the skin department where he remained only five days, since which time he has not been seen. No record of the demonstration of blastomycetes was made. This fact is

significant as at the County Hospital, the physicians are energetic in the examination of these cases. Up to the present time, May, 1909, large numbers of cutaneous cases and twelve of systemic blastomycosis have occurred in this institution.

Case 2. This patient was a woman aged twenty-nine years, a private case, referred to our late colleague, Dr. Frank Hugh Montgomery, with a diagnosis of blastomycosis. The following are the notes made by Dr. Montgomery during his observation of the case:

Family history: father living, aged fifty-five years, healthy until recently. At the present time he is supposed to be suffering with gastric carcinoma. Mother died at the age of thirty-two from rheumatic fever. One brother died at the age of fourteen from some unknown disorder. The patient has six sisters living and well.

Past personal history: As a child the patient enjoyed good health. Menstruation began in her seventeenth year but was always irregular. Suffered with moderate dysmenorrhœa before marriage. At twenty-three years of age, she began having convulsive seizures. The first occurred in the night while the patient was in bed and most of the subsequent seizures, of which she averaged one in each four or five weeks, have occurred similarly. These attacks were severe, the patient always becoming completely unconscious and often injuring the tongue. No attacks occurred during her one gestation but recurred upon its termination. Has one child living, three and a half years of age. One year ago she began taking a mixture of potassium, sodium and ammonium bromide since which time no convulsions have occurred. For five years her general health is said to have been fair. The cutaneous disorder began one year ago coincident with the institution of bromide treatment, as a pimple on the posterior surface of the right leg. Two weeks later a similar lesion appeared on the opposite calf. The record states that the lesions gradually spread. The condition found on examination was as follows:

Both legs were involved from the ankles upwards to within three inches of the knees. The borders were clinically typical of blastomycosis except that they were only slightly elevated. Many minute abscesses were present. The central portions showed superficial reddish-brown scar-formation. At this time with Dr. Montgomery, I examined pus from many abscesses with negative results as to blastomycosis much to our surprise. Potassium iodide was ordered with carron oil locally. We determined to make a further search for the organisms on her next visit. In four days the pa-

tient returned when we were again surprised to find no abscesses and no pus. At this time we discussed the similarity of this case to the first here reported. Five weeks after her first visit, under treatment with white precipitate locally, the condition was completely relieved and there remained only the brownish-red atrophic skin.

On March 1, 1909, the patient reappeared with a new area which we were able to watch and which she says ran the same course as before. On this date, the lesion was of the size of a silver half-dollar and was studied by Dr. Hyde, Dr. McEwen and myself. It was elevated moderately, situated on the outer surface of the left shin near the junction of the middle with the lower third of the leg. The surface was eroded in places and presented many small pustular points. The patient stated that it had grown to its present size in a few days. It now presented the type-picture of papulo-pustular bromide lesions. The pustules were more yellow, more superficial and the entire lesion presented evidences of a process more acute than we have ever seen in blastomycosis. The patient admitted that she was again taking bromides. Four days later the lesion had spread greatly and in two weeks it had surrounded the limb and occupied several inches of the cutaneous surface. In three weeks from the beginning, its center had cleared and at that time the elevated margins with the healed center were practically identical in appearance with that presented on her first visit when the photograph shown was taken. After this time, with local soothing lotions and arsenic internally, the lesions rapidly subsided.

Case 3. This patient was a girl, seven years of age, with lesions and relics situated on both lower limbs in the same areas described in Case 2. Dr. Hyde immediately suggested the usual examination for blastomyces as the clinical resemblance in this case was so striking. The active margin was elevated, surrounded with a bluish-red areola while the center of the lesion was brownish-red and the skin appeared atrophic. On comparing this case with the photograph of Case 2, they appeared identical as to character and to lesions. Of course the difference in the size of the limbs of the patients was considered. No blastomycetes were found. The following is the history of the patient written by the father in response to a letter of inquiry from us:

"As to the skin disease, it commenced two years ago last November. It started with a small pimple on her right limb about halfway between the knee and the ankle. Pimples kept forming and making larger sores all the time until it was clear around the limb

from her knee to her ankles. The left limb started the same way about eighteen months ago.

"The convulsions commenced when she was nine months old. We first gave her medicine for them when she was a year and a half old. About three years ago we started to give her Dr. F. E. Grant's epileptic cure. She had only two or three fits during the year and a half she took his medicine. We stopped giving her this medicine as the doctor thought that was what started the skin disease. It seemed that when she was taking the bromide it helped those spells, but her limbs were worse.

"Her grandfather on her mother's side, died of cancer of the stomach; the others are still living. We have two other children, one aged six and the other two. They are very healthy. None of us have ever had fits that we know of."

The three cases detailed above were of the same type. A somewhat different type was exhibited in the case of a patient Dr. Hyde saw in consultation some distance from Chicago who presented multiple lesions exhibited in large plaques and patches composed of papulo-pustules surrounded with a bluish-red halo, the whole area being elevated about one-eighth of an inch above the surrounding normal cutaneous surface, but not presenting the clearing center shown in the first three. The patient was a neurotic woman to whom bromide of potassium had been given for several months. Although in Dr. Hyde's opinion the case was one of bromide exanthem, he desired a bacteriologic examination to rule out blastomycosis. The microscopic examination confirmed the clinical diagnosis. A few additional cases could be added to this last one in our recent experience.

The four cases above detailed represent a group of patients suffering with an exanthem due to ingestion of salts of bromine, all resembling blastomycosis. With a view to further demonstration of the similarity between the two disorders here compared, the following case is of interest:

At a meeting of the Chicago Dermatological Society held in December, 1907, Dr. R. R. Campbell presented a patient with multiple cutaneous lesions situated on the face and extremities which every member except the exhibitor agreed was a bromide eruption. Through the courtesy of Dr. Campbell, the writer later examined sections from this case which positively proved it to be one of blastomycosis and not a bromide eruption.

Résumé: The lesions situated on the legs of the three patients first described were similar. In two no lesions existed elsewhere.

In one, the many outlying pustules and papulo-pustular lesions were similar to the ordinary bromide lesions of this type. At the time of examination the lesions were undergoing resolution in the center which presented large brownish-red atrophic areas. The elevated active margins were papulo-pustular and crusted, surrounded by a bluish-red or pale red areola in which many miliary pustules were present. These pustules were more superficial and there was greater irregularity in their shape and size and their contents were more lactescent than in similar lesions of blastomycosis. In the deeper miliary abscess of the latter disorder, a muco-pus is present. In the earlier stages the bromide exanthem is more actively inflammatory, but later the processes in this respect are very much alike and finally on a superficial examination, the two conditions are clinical counterparts of each other.

From the foregoing, it appears to be essential in any case suspected to be one of blastomycosis in which bromides have been exhibited, to positively demonstrate the presence or absence of the causative organisms (blastomycetes) before drawing final conclusions.

I am greatly indebted to Dr. Hyde for material and valuable suggestions.

SOCIETY TRANSACTIONS.

NEW YORK DERMATOLOGICAL SOCIETY.

Regular Meeting, May 25, 1909.

DR. H. H. WHITEHOUSE, President.

Lupus Erythematosus. Presented by DR. TRIMBLE.

The case presented one unusual feature. The patient, a girl of twenty-three years, had a congested area about the size of a half dollar on the left side of the face; there was no scarring. Within this area there were two small lesions about the size of a match-head, which exhibited all the signs of an erythematous lupus. The condition had existed for four years. The two small lesions had been curetted with a very good result. The case was shown merely for suggestions as to treatment.

Recurring Multiple Verrucae. Presented by DR. TRIMBLE.

This case also was presented for suggestions as to treatment. The patient, a young man, had a group of pin-head size warts on the right side of the neck. When first seen they were curetted and cauterized with

silver nitrate, but they reappeared much as before. This procedure had been carried out as many as six different times, followed each time by a recurrence. Last summer he had several large ones on his hands, which were curetted. These did not return in the same place, but others have appeared on the hands. Some other practitioner had cauterized two of the warts on the chin with nitric acid, and in both instances a keloid formed in the scar. This emphasized a point brought out at the last meeting of the Society by Dr. Trimble,—viz., the frequent formation of keloids following the application of nitric acid.

Dr. Fox thought that if the curette were used thoroughly the warts would not come back. After curetting, he considered that pure carbolic acid was a better application than nitrate of silver, especially on the face.

Dr. SHERWELL advised the thorough use of the curette, followed by nitric acid. If this were done he did not think the warts would return.

Dr. FORDYCE said that he had cured cases of multiple flat and pointed warts on the face by curetting, followed by the application of a half per cent. solution of bichloride of mercury.

Referring to the case of lupus erythematosus, he said that the treatment of this condition was very unsatisfactory.

Dr. LUSTGARTEN, referring to the case of lupus erythematosus, said that he could only repeat what he had already referred to on previous occasions. Hollander recommended quinine with external applications of tincture of iodine, thinking that there was some sensitizing influence on the iodine through the circulation of the quinine in the system. Dr. Lustgarten, however, did not think that it was the iodine, but the quinine internally, which was beneficial. The doses should be quite large, twenty to thirty grains a day, and continued for a long time.

As far as local treatment was concerned, the high frequency sparks gave a very satisfactory result. If very energetic treatment was required, Dr. Lustgarten used instead of a glass electrode a sharpened pencil, and if the spark gap was made very small, about 1 mm., very quick and not very painful cauterization would be obtained in a few seconds.

Dr. ROBINSON agreed with what Dr. Lustgarten had said in regard to the use of quinine; but in his experience most cases were greatly benefited by sodium salicylate. He had seen a large number of cases show rapid improvement under the use of quinine and salicylate of soda without any local application.

Dr. JOHNSTON said that he did not think the first case was one of lupus erythematosus, but that it was an erysipelatoid dermatitis due to a streptococcic infection. He thought that if the nose were treated with a simple saline douche, the condition would be much benefited.

Dr. JACKSON said that he believed in thorough curettage followed by an application of pure carbolic acid. Sometimes he touched the bases with nitrate of silver to stop the bleeding, and to avoid the long waiting for it to stop of itself. Practically no scars were caused by this treatment.

Dr. BULKLEY said that he wished to confirm what he had previously said about pseudo-erysipelatous conditions about the nose and face. He believed that if treated properly internally, and with suitable local applications within the nose, they could be controlled; and if Dr. Trimble's case were treated properly the lesion would be arrested and would cease entirely.

In regard to the warts, he agreed with Dr. Fox. He had treated and cured many by curetting, without any scar at all.

Dr. TRIMBLE said that he was indebted to the members for the suggestions

made, and would carry some of them out. As to the verrucæ, he had curetted them several times, and he was under the impression that he had done it very vigorously.

Referring to the other case, he had not had much success with quinine given internally. At the time of presentation the patient was taking three grains of ichthyol every day, but was not showing any especial benefit. He would make it a point to look into the question of examining the inside of the nose.

Lupus Erythematosus in a Girl Seven Years Old. Presented by DR. JACKSON.

The mother stated that the child had had a rather severe attack of mumps in March and early April, and that the eruption appeared on the face shortly afterward, or about a month ago. The disease occupied the site and presented the appearance of a typical "butterfly lupus," spreading out from the nose on to the cheeks. Most of the surface was smooth. There was some slight scaling on the nose. The color was still a bright red in places, but was tending to assume the peculiar red of lupus erythematosus. There was some infiltration of the edges of the patches.

DR. FORDYCE said that it was certainly very unusual to see the condition in so young a child.

DR. FOX agreed with the diagnosis and said that it was the youngest case he had ever seen.

Hydroa Vacciniforme. Presented by DR. FOX.

This was a case of hydroa vacciniforme not occurring as early in life as usual. The patient was nineteen years of age and the condition had existed for ten years. When first seen a week ago, the face was dotted with crusted lesions and the backs of the hands were covered. He had suffered with this condition for ten years during the hot weather, but at no other time.

DR. JACKSON said that it was a very rare case. Fifteen or twenty years ago he saw a similar case in Dr. Fox's clinic. The patient was a boy, and the eruption came on in cold weather. Bullæ formed on his face, ears and hands, and left scars. He kept a news-stand on an exposed corner. Raw, damp winds seemed particularly prone to cause the eruption, which had recurred many times.

DR. MORROW said that it was a very typical, but unusual, and interesting case of hydroa. Such conditions he did not see as often now as formerly.

Case for Diagnosis. Presented by DR. FOX.

The patient, a young sailor lad, had a well-marked eruption on the forearms and ankles. When first seen that afternoon at the clinic four different diagnoses were made, and all four might have been wrong. The eruption was accompanied with considerable itching, as was evidenced by the excoriations on the leg. He had suffered from the condition for a week.

DR. MORROW thought that the clinical picture was very suggestive, and

almost decisive of lichen planus. The objective character of the lesions conformed to typical lichen planus of very rapid development. Possibly the localization of the lesions might contravene that diagnosis, but it certainly resembled lichen planus more closely than anything else. Dr. Morrow said that these eruptions came out almost explosively sometimes. Occasionally cases were encountered that developed very rapidly, covering almost the entire body in two weeks. The subsequent development would remove all doubt of the condition.

DR. SHERWELL agreed with Dr. Morrow that it was lichen planus, and said that he had seen explosive manifestations of the disease. He knew of two or three cases of this kind.

DR. LUSTGARTEN did not agree with the diagnosis of lichen planus, and with the artificial light it was very difficult to reach a definite conclusion, but to him it seemed like an eczema due to some disturbance of the sweat apparatus,—which would explain its acute onset, etc. Furthermore, the possibility that the patient had used some local application, or had come in contact with some substance of which he gave no history, should be taken into consideration.

DR. ROBINSON did not think it possible to make an off-hand diagnosis of lichen planus, on account of the limitation of the eruption. It was too limited for a case of acute lichen planus with small lesions. He was inclined to think that it was connected with the sweat apparatus, but was not a case of miliaria. Such affections were pretty sure to give serous lesions, with marked infiltration of the tissues. All of the lesions in this case were reddish, with shining surfaces, and most of them had little sweat duct openings, such as are seen in cases of lichen planus. Further observation of the case would be necessary before reaching a positive diagnosis, but it was probably lichen planus.

DR. JOHNSTON said that the condition having existed for only a week, one could hardly expect to see granulation tissue. Lichen planus would do strange tricks occasionally. He had under treatment a case which began with six papules on the backs of both wrists, which greatly resembled necrotic granuloma. The diagnosis of lichen was made later, and within a month the entire body was covered with papules as red and as small as those in Dr. Fox's case, which were typically those of lichen planus. It was checked at the end of three months. The case was treated with arsenic, and when after improvement this was withheld the lesions began again, but left free the old pigmented spots from the first attack. The second attack was now beginning to disappear. In both attacks the lesions were like those on this boy.

DR. KLOTZ thought that the condition was caused by some external irritant.

DR. JACKSON said that the case did not impress him as being lichen planus. The lesions were not the right color, and the attack was very acute. If he were forced to make a guess at the diagnosis he would say papular exudative erythema, because the eruption came on suddenly, the weather was changeable, and the affected parts were those often affected in erythema: the backs of the hands, forearms, and wrists.

DR. DADE said that all the papules were connected with the sweat glands, and that the hands were reeking with sweat. He would consider the condition a sweat rash that had probably been aggravated. He saw no resemblance to lichen planus whatever.

DR. KINGSBURY agreed with Dr. Lustgarten in that the condition was due to some disturbance of the sweat glands. It was decidedly not lichen planus.

DR. BULKLEY said that the patient would have had some eruption on the body by this time if it were lichen planus, that is, with such a great development on the hands and feet. But he had never seen lichen planus develop so rapidly. The lesions were only on the feet and hands, and as these sailormen were always using lye or something of the kind for cleaning, it seemed probable that it was an artificial eruption developing an acute papular condition.

DR. TRIMBLE said that he had seen the case for the first time that afternoon, and had made the same diagnosis as Dr. Jackson,—erythema papulatum.

DR. FOX said that he had seen the boy for the first time in the clinic, and was at first inclined to the diagnosis of lichen planus. He had seen acute cases develop on the extremities before developing on the body. In nearly all the cases that he had seen of acute general lichen planus the papules had not been the typically flattened ones, but were more rounded and succulent in appearance. Some at the clinic claimed that these lesions were vesicular in places, but he had not been able to confirm this. It was certainly peculiar in appearance and was an exceptional case. He did not think it could be diagnosed accurately until it had been observed for a week or perhaps a month.

Lupus Vulgaris of the Buttock Following Measles. Presented by DR. KINGSBURY.

The patient was a schoolboy twelve years of age. He was born in Italy, but had lived in this country for nearly nine years. His parents, brothers, and sisters were all healthy, and the patient himself, although somewhat undersized, appeared to be in good general health. A careful physical examination of the chest was entirely negative. The boy had measles about nine months ago, and the parents stated that shortly after he recovered from that disease they noticed a small lump on his right buttock. It slowly increased in size until it attained the size of a silver dollar. The lesion was rather sharply margined, and was quite typical of the so-called hypertrophic lupus.

Tuberculosis Verrucosa Cutis. Presented by DR. KINGSBURY.

The patient was fifty-seven years of age and had lived in New York City all his life. He was the driver of a coal cart and was active and apparently healthy. His history was negative as to association with phthisical individuals. He stated that winter before last his right hand was frost-bitten and that shortly after, the eruption appeared. When presented, there was an indurated warty plaque covering the knuckles of the index and middle fingers, and about half of the back of the hand.

Case for Diagnosis. Presented by DR. FORDYCE.

This patient was presented at the last meeting by Dr. Morrow as a case for diagnosis. She gave a definite history of syphilis, and had been under more or less active anti-syphilitic treatment without producing much effect on the scaling eruption on the face. During the past month she had been taking mixed treatment and showed some change at the margin of the eruption; the infiltration seemed less marked. The Wassermann test was weakly positive, as would be looked for in a patient who had been actively treated.

The woman undoubtedly had syphilis, but at the same time she might have had a lupus erythematosus.

DR. BULKLEY thought that it was a case of lupus erythematosus. Had it

been a case of syphilis, there would have been a greater change after such vigorous treatment. The lesion was very characteristic of lupus, especially some parts of the margins.

DR. DADE saw no reason to change his former diagnosis of erythematous lupus. Had it been syphilis, a month of mixed treatment would have made some change and apparently none had taken place. The ear lesions alone were typical of erythematous lupus and nothing else. He saw no resemblance to syphilis whatever.

DR. SHERWELL thought it was a case of erythematous lupus such as might occur in a syphilitic individual.

DR. MORROW said that he had not revised his opinion since he had observed the case last month. The woman undoubtedly had a specific history, and other lesions, such as mucous patches in the mouth, etc., had disappeared under specific treatment. He had presented the case because the lesion on the face bore such a striking resemblance to lupus erythematosus that he thought it might be this disease developing in a specific case. The results of treatment, if pressed more energetically, would clear it up, though he doubted if any specific treatment, even the most energetic, would have any effect if it were simply lupus erythematosus.

DR. LUSTGARTEN thought it a syphilitic condition, and advised more energetic treatment.

DR. ROBINSON said that a number of years ago he showed a case of acute lupus erythematosus before the Society, and the members were divided in opinion between syphilis and lupus erythematosus. It was treated with mercury and iodide and with great improvement within ten days, after which time the diagnosis of lupus erythematosus was easily made. He thought Dr. Morrow's case was one of lupus erythematosus.

DR. FOX agreed with the diagnosis of lupus erythematosus—the locality of the disease, over the ear, and the character of the edges inclined him to take this view. It did not look to him like a case of syphilis, although some of the clinical appearances were suggestive of that disease. It was well known that mixed treatment sometimes would have a beneficial effect on cases of lupus.

DR. WINFIELD agreed with the diagnosis of lupus erythematosus. As for the mixed treatment, he had a case at the hospital in which the patient had improved under such treatment, but later the disease had started up again and became as bad as ever.

DR. FORDYCE said that he still felt some doubt as to whether the case was syphilis or lupus erythematosus. Treatment for a month had not given a decided result. The clear history of syphilis and the weakly positive result of the Wassermann test would not necessarily exclude the diagnosis of lupus erythematosus.

Sycosis, Showing the Disastrous Result of X-ray Treatment. Presented by DR. DADE.

The case was shown more as a warning than anything else. The atrophy of the nostrils, the persistent X-ray burn around the corner of the mouth, the scarred, atrophic condition of the skin and disfiguring telangiectases were hardly recommendations for this useless method. Where there was any hair left the sycosis was still present. It was for relief from the burn around the mouth that he presented himself at the clinic.

DR. FORDYCE said that the more he saw of the results of X-ray treatment on the face the less he was inclined to use it, as frequently the resulting atrophy and telangiectases caused more deformity than the original condition.

DR. FOX said that he had lost confidence in the X-ray except in a few affections, such as keloid, where it would do what nothing else would accomplish. In some malignant conditions it would do some good, but in most cases it was harmful. In cases of ringworm and favus of the scalp, he had never seen any harm result, and it has been most effective in effecting a speedy cure in cases that used to be a long time in the hospital.

DR. DADE said that the case spoke for itself.

Naevus Unius Lateris. Presented by DR. DADE.

The patient was a young man twenty-two years of age. He presented a pigmented, warty growth extending from high up in the right groin down along the inner side of the thigh and nearly to the ankle. At the base of the penis on the same side was a large warty growth, the size of a walnut. The flat warty appearance of the naevus was more pronounced on the groin and thinned out gradually until it reached the ankle.

DR. FORDYCE said that it looked like naevus verrucosus.

Three Cases of Alopecia Areata in One Family. Presented by DR. WHITEHOUSE.

1. Boy, twelve and a half years of age, who had had three attacks, losing entire hair of the scalp and eyebrows; first attack at six years of age, second at eight, and this third attack at nine. At time of presentation, after three and a half years, the scalp was absolutely bald with no signs of regrowth. A downy growth was beginning on the eye-brows.

2. Brother, nine years old, had patches on the back part of the scalp, beginning with half-dollar-size lesions three years ago. Not wholly regrown at time of presentation.

3. Sister, three and a half years of age. Several large and small patches on the scalp, beginning four weeks ago. The disease had progressed rapidly.

DR. FOX did not think that this family nor the one presented by Dr. Kingsbury at a previous meeting proved the contagious character of the condition, though it might be influenced by some neurotic condition in the family. He was inclined to consider the condition neurotic rather than parasitic.

DR. KINGSBURY said that it was very interesting that the condition should occur in different members of the same family. He did not, however, consider that the disease was contagious.

Case for Diagnosis: Pyogenic Infection of Subcutaneous Tissue of Jaw. Presented by DR. ROBINSON.

This case had been presented at a previous meeting, and was presented again simply to show a later condition. At that time the diagnosis was between sarcoma, actinomycosis and pyogenic infection.

Two Cases of Lupus Erythematosus. Presented by DR. KINGSBURY.

I. K. K., single woman, twenty-two years of age. Born in Hungary and had lived in this country but a short time. She was anæmic and poorly nourished, but stated that her general health had always been good. She had had the disease five years, and there were lesions on the nose, left cheek, and lower lip. The patches on the cheek presented marked capillary dilatation, and there was little if any tendency to scale formation. The telangiectatic feature was also prominent in the lesion on the lip.

II. J. H., porter, thirty years of age. Born in Ireland. The patient was thin and poorly developed, but the family and personal history were negative as to tuberculosis. He had had lupus for the past ten years, and at time of presentation there were active lesions on the nose, cheeks, scalp, and lower lip. There was considerable destruction of the lobule of each ear, and there were several cicatrices on the face at the site of old lesions. The skin on the chin was quite wrinkled and showed atrophic change, the result of X-ray treatment.

Lepra Tuberosa. Presented by DR. KINGSBURY.

The case was presented to this Society at the April, 1908, meeting. Since then the man had spent about nine months in the wards of the City Hospital. He was shown again on account of his improved condition. The tumors on the arms and thighs had flattened considerably, and there were but few new lesions. He had gained nearly thirty pounds in weight and appeared to be in excellent general health. Medication consisted of atoxyl, chaulmoogra oil, and mercury, but probably greater benefit had been derived from the improved hygiene than from internal remedies.

DR. BULKLEY said that the change for the better was very remarkable. The man had gained in weight, and some of the lesions had entirely disappeared. He had faith in chaulmoogra oil. The man had been going about the city and working all the time, and did not seem to be in a very dangerous condition. Dr. Bulkley stated that leprosy was not so alarming a condition as some people were led to believe, and the Board of Health had placed no restriction on those suffering from it.

**NEW YORK ACADEMY OF MEDICINE, SECTION ON
DERMATOLOGY.**

Stated meeting held April 6, 1909.

DR. SIGMUND POLLITZER in the Chair.

Syphilitic Orchitis and Arthritis. Presented by DR. WILLIAMS.

Since this patient was shown at the Section in February, his roseola had gone, and the ulcers on the prepuce had healed. About a week ago he complained of pain in the left leg, and examination revealed a boggy

swelling with slight fluctuation just internal to the ligamentum patellæ. The head of the tibia beneath seemed slightly enlarged also, and the whole region was tender on pressure. The scrotum was red and the left testicle enlarged, firm and tender, while the epididymis was slightly enlarged, not hard, and less tender than the testicle.

DR. POLLITZER asked the members to state their experience as to the frequency of recurrent roseola, which this patient had shown when previously presented. He himself had now under observation a patient who, after six months of treatment, developed a typical roseola during a two weeks' interval of treatment. He had seen perhaps half a dozen such cases in all.

DR. LAPOWSKI said that he had seen two cases, besides the present one, of recurrent erythema. One occurred twenty years after infection, and resembled an antipyrin eruption; the diagnosis was confirmed by Fournier. The other occurred in a patient who after being treated for six years developed a chancre redux, followed in six or seven weeks by a roseola, and soon after by a gumma of the forearm. Dr. Lapowski said that it was characteristic of this late roseola to be more infiltrated than the usual form, and that it left slight pigmentation.

Case for Diagnosis. Presented by DR. DANA HUBBARD.

The patient was from the Vanderbilt Clinic, and was shown by the courtesy of Dr. George T. Jackson. She was sixty years of age, and a native of the United States. Her family history was negative. She had always had healthy skin. She had only two children, both healthy. She passed the climacteric period at her fiftieth year. She had slight rheumatic twinges at times, but no objective evidences of chronic rheumatism. She noticed about two years ago that her head itched considerably in spots, that she would scratch, and when she did that the hair came out considerably. The spots felt rough and warty to the touch. She had of late been having palpitation and dyspnœa; she could not recline on the left side. There was no disturbance of the skin except in the scalp, where there were four areas of alopecia, varying in size and irregular in outline. The hair follicles were enormously enlarged and hairs were missing. The skin of these areas was hypertrophied, considerably elevated and dry, felt roughened but was not verrucous. The only subjective symptom was intense itching. Dr. Hubbard thought that the diagnosis rested between hypertrophic eczema and lupus erythematosus.

DR. HOWARD FOX said that this was a case of lupus erythematosus.

DR. DILLINGHAM said that this was probably a case of lupus erythematosus, and called attention to the atrophy in the spot near the forehead.

DR. POLLITZER said that he agreed with the previous speakers that this was a case of lupus erythematosus. He had succeeded in removing horny plugs from many of the follicles.

DR. HUBBARD said that he thought the diagnosis of lupus erythematosus was still not established.

Erythema Multiforme. Presented by DR. LUSK.

The patient was a man thirty-eight years of age; bartender, moderate

drinker, irregular meals; general health good, but very constipated, the bowels moving only once in three or four days. Three months ago he noticed a red rash on the thighs which itched considerably; shortly after an eruption appeared on the backs of the hands and later over the whole body. When first seen a beautiful picture was presented. The trunk was covered with large annular, gyrate or circinate lesions of the character of wheals. The average life of each lesion was stated as being about one week. Papules of various sizes and stages of elevation were seen on the thighs, buttocks, legs, dorsal surfaces of feet, and dorsal surfaces of hands. A few bullæ were seen on the thighs and legs. The eruption had subsided considerably since undergoing five days of treatment, but still presented a beautiful picture of erythema multiforme.

DR. DILLINGHAM said that on account of the character of the wheals he would class this as urticaria rather than erythema multiforme.

DR. POLLITZER said that the duration of six to ten days of each lesion, and the absence of any very great itching were strongly in favor of erythema multiforme and against urticaria.

Case for Diagnosis. Presented by DR. LAPOWSKI.

The patient was a man about forty years old. He denied all syphilitic history. The lesions were of several years' standing, and had been treated for a period of twelve months by the X-ray. There were pea-sized ulcerations arranged serpiginously over the forehead, with infiltrated borders and scar tissue in the centre.

DR. DILLINGHAM, DR. HOWARD FOX, DR. KINGSBURY, and others said that the process was syphilitic.

DR. POLLITZER agreed with the diagnosis, and called attention to the long duration and the superficial character of the very extensive lesion, both unusual.

DR. LAPOWSKI accepted the diagnosis of syphilis. He called attention to the fact that the cure of one of the lesions under the influence of the X-ray was a proof that such a cure was of no value in distinguishing between epithelioma and syphilis.

Leprosy. Presented by DR. KINGSBURY.

The case was previously presented before the Manhattan Dermatological Society, April 3, 1908, and was reported in *The Journal of Cutaneous Diseases* for February, 1909, page 94. There had been no important change since.

DR. LUSK said that he had seen this case several times before, and that it was now at a standstill, if not improving.

DR. HUBBARD said that he had several cases of leprosy under observation in New York City. Some of these had greatly improved under treatment with chaulmoogra oil, and later under no treatment at all. Nearly all the rest improved without treatment, and he believed that in this city the danger of contagion was negligible.

DR. HOWARD FOX endorsed Dr. Hubbard's remarks on the number of lepers in New York City. He called attention to the fact that leprosy often gave a positive Wassermann reaction.

Lupus Vulgaris. Presented by DR. HOWARD FOX.

The case was previously presented at the Section on November 10, 1908,* and also at the New York Dermatological Society as one of lupus vulgaris. The patient had received a thorough course of antisyphilitic treatment, but had not shown enough improvement to warrant a diagnosis of syphilis. The treatment had consisted of ten injections of calomel followed several weeks later by potassium iodide given three times a day for six weeks. For the greater part of the time this was given in doses of forty grains three times a day.

DR. COCKS said that the improvement had been so great that he felt sure that this was syphilis, and not lupus vulgaris, and the treatment should be continued.

DR. LAPOWSKI agreed with Dr. Cocks. The face had improved slightly, and it would be difficult or impossible to make a diagnosis from the clinical appearance of the face alone, but on account of the very great improvement in the other lesions, he believed the whole process to be syphilitic. He said that the resistance to calomel injections was not in opposition to that diagnosis, as the best effect of calomel injections, in old syphilitics, was frequently not seen until several months after the treatment.

DR. POLLITZER said that he agreed with the previous speakers, and thought Dr. Fox's estimate of the improvement was too moderate. He was in doubt about the lesions on the face, but felt sure that those on the forearm and leg were syphilitic. He said that the pointed nose had no especial diagnostic value, and quoted Doutrelepon's advice to physicians that every case of apparent lupus of the nose should first be given the benefit of antisyphilitic treatment on account of the great difficulty in diagnosis.

Tuberculide. Presented by DR. CLARK.

The patient was an American, forty-one years old, single. There was no tuberculosis in the family. The patient was never ill except for an occasional bilious headache. He had never had syphilis. For several years he had had papules and comedones on the back and shoulders. After trying various treatments for this condition, he was subjected to mercurial injections about six months ago; thirty injections were given in all over a period of three months. There was no improvement in the condition of the back or shoulders and the injections were stopped. Two months ago new papules began to appear on the arms and legs, and the patient noticed that they were different from the others in that they seemed to break down in the centre and dry up, and after about three weeks would disappear, leaving a little scar. In the last two months many such papules had appeared on the extremities, loins and buttocks.

Examination. Well nourished man—no sign of syphilis—no other sign of tuberculosis. There were many inflammatory papules, scars and comedones on the back, and a few on the arms and legs that probably represent an old chronic intoxication from his intestinal tract. On the legs,

**Jour. Cutan. Dis.*, Apr., 1909, p. 173.

arms and buttocks were papules with necrotic centres; pigmented, superficial, small scars and white scars that had resulted from these papules, giving a quite typical picture of necrotic granulomata. Scattered on the back, legs and buttocks were infected papules, superficial small ulcerations the result of infection of these papules and level pigmented circumscribed areas that represented inflamed infected papules which resolved without ulceration. The patient showed a very positive von Pirquet reaction.

Dr. Clark said he would immediately place the patient on injections of tuberculin (bacillus emulsion) beginning with $\frac{1}{10000}$ m. g., and increased in series of tenths, carefully avoiding a local or general reaction. Dr. Clark believed that these lesions, being due to the toxins of the tubercle bacillus, could be entirely dissipated as the patient was made less and less susceptible to tuberculous toxins by this method of administering tuberculin.

Dr. LAPOWSKI said that this was a case of syphilis, basing his diagnosis on the dull-red, raised border and the broad, slightly depressed center. The lesion on the buttocks, he thought was a furuncle, the appearance of which was greatly affected by its occurrence in a syphilitic subject.

Dr. HOWARD FOX said that he could find no evidence of syphilis in this case. Many of the lesions were simple infections, while those on the arm represented a probable tuberculide.

Dr. COCKS said that the lesions shown in this case conformed to those in cases always shown and described as a tuberculide.

Dr. DILLINGHAM agreed with the diagnosis of tuberculide.

Dr. POLLITZER said that this was an example of what was called a tuberculide. He could see nothing syphilitic in the case, and considered the lesion on the buttock an ordinary furuncle.

CHARLES M. WILLIAMS, M. D.,
Secretary.

NEW YORK ACADEMY OF MEDICINE, SECTION ON DERMATOLOGY.

Stated meeting, held May 4, 1909.

Dr. SIGMUND POLLITZER in the Chair.

Acne with Keloid Formation. Presented by Dr. WILLIAMS.

The patient was a woman about thirty-five years old. She had had a mild acne indurata for many years, and about six years ago several of the pustules were incised. In healing, all these incisions formed hypertrophied scars, which were raised about an eighth of an inch above the surrounding skin. Comedoes occurred more frequently in these scars than elsewhere. Within the past six months a few new pustules had appeared, some of which had assumed a keloidal character, though they had not been operated on.

DR. MACKEE suggested treatment with the X-ray. He thought the lesions were only hypertrophied scars and not true keloids, and in that case, they might be destroyed with acid or some other caustic, but such treatment would be dangerous if they were true keloids, while the X-ray might cure in any case.

DR. POLLITZER said that clean surgical excision was the best treatment. At the worst there would be only a recurrence of the keloid, while, in his experience, there was a very good prospect of a complete cure. The X-ray might be of service, but the method was tedious; it would, however, have the advantage of helping the case at the same time.

Dermatitis Papillaris Capillitii. Presented by DR. MACKEE.

The patient was a man, forty-five years of age, a native of Italy. He presented himself at Dr. Fordyce's clinic one month ago. The disease began eight months ago as hypertrophied follicular papules. The eruption always had been limited to the back of the neck. In the centre of the neck there was an irregular keloidal mass, two inches long, one and one-half inches wide, and elevated about one-half inch from the surface. It was firm to the touch, and as a rule not painful. Occasionally the tumors became inflamed and slight suppuration occurred. Surrounding the central mass were numerous pustules and papules, the latter varying in size from a pin-head to that of a small bean. He had been treated without success by both the knife and by the application of various caustics. The patient had received a few X-ray exposures and was improving.

DR. POLLITZER said that the X-ray was the ideal method for these cases, affecting both the pus formation and the keloid.

Epithelioma of the Tongue. Presented by DR. COCKS.

The patient was Irish, forty-five years old, a truckman by occupation. He was a moderate drinker, but an inveterate smoker of the clay pipe. He had always been well and was the father of four living children. His wife had had no miscarriages. Seven months ago he first observed an obstruction to the introduction of the stem of his pipe into the mouth. At time of presentation he was unable to hold the pipe between his teeth on the right side with any degree of comfort. He had no pain. He had been able to eat without any discomfort, and enjoyed his tobacco, which he carried on the same side as the neoplasm. The tumor was located on the right side of the tongue. It was indurated, the edges eroded and it bled freely when irritated. The centre was concave and soft. The sublingual and submaxillary glands were enlarged, also the anterior cervical. Dr. Cocks first saw the patient four months ago. The tumor was growing rapidly.

DR. MACKEE said that Abbe, Wickham, Degrais and others had claimed good results from the use of radium in cancer of the mouth. Dr. MacKee had had no experience with radium, but he doubted its efficacy in these cases, and he was sure that the X-ray was useless here. He advised complete surgical

ablation very strongly as the only chance of saving the man's life, with post-operative Röntgen ray treatment.

DR. POLLITZER advised radical operation very strongly. He said that the chance of recovery was indeed slight, but that without operation there was no chance at all.

Bromide Eruption. Presented by DR. MACKEE.

The patient, a young man, was from Dr. Fordyce's clinic, and was presented by Dr. Fordyce at the April meeting of the New York Dermatological Society. The fungating lesions on the face which were, at that time, at the height of development, had undergone considerable involution. Within the past two weeks, however, a number of firm, smooth, elongated and considerably elevated, dull-red, non-pruritic papules had appeared upon the flexor surface of the right forearm. He also had two large and painful furuncles on the neck. Four months had elapsed since he ingested a small quantity of the bromides, and the case was interesting in demonstrating not only the result of a small quantity of bromide in a susceptible individual, but also the length of time that the eruption could last, and the fact that new lesions could continue to develop for a number of weeks after the drug had been discontinued.

Papillary Tumor of the Tongue. Presented by DR. POLLITZER.

The patient was a male, thirty-five years of age; admitted to the Willard Parker Hospital for diphtheria in December, 1906; discharged cured, after four weeks. Readmitted for diphtheria two weeks later; discharged after four weeks. He was first seen by Dr. Pollitzer fourteen months later, in May, 1908. He then had several small gummatous ulcerations about the nose, an ulcer on the left tonsil and general adenopathy. He was treated regularly for a period of over one year—till May, 1909, when he passed out of observation. In connection with this history there was a question whether his several attacks of "diphtheria" might not have been the beginning of his syphilis, in view of the fact that a second attack of the diphtheria within a fortnight after the cure of the first attack must be looked upon with great suspicion, and that the man showed no evidence of the primary lesion of syphilis in its usual location. When presented there was a small ulcer at the side of the nose and the scars of the former ulcer. The interesting feature of the case was found on the tongue, which showed on the dorsal surface a large papillary growth covering a triangular area, its apex in the middle of the posterior half of the tongue, its base resting on the circumvallate papillæ. The mass was nearly one centimetre in height at its anterior portion, and became less elevated as it spread backward and outward. In appearance it resembled a condyloma acuminatum and had a bluish-white color. There did not appear to be any abnormal secretion from its surface. The growth had been present nearly a year according

to the patient's statement and gave him no inconvenience. It was certainly not syphilitic in its nature, and there was no doubt of its benign character.

Dr. MacKEE thought this was a hypertrophy of the circumvallate papillæ, due to irritation, and analogous to the pyogenic granuloma sometimes seen on the skin.

Dr. POLLITZER said that there were two objections to considering this a process analogous to the pyogenic granuloma which sometimes occurred on the skin. In the first place, there were no hair follicles on the tongue, and in the second place, there was no evidence of pus formation in this case. He proposed ablation of the mass with cauterization of the base, and microscopical examination of the growth for the purpose of diagnosis.

CHARLES M. WILLIAMS, M. D.
Secretary.

CHICAGO DERMATOLOGICAL SOCIETY.

January 22, 1909.

Dr. JAMES NEVINS HYDE in the Chair.

Tuberculosis Verrucosa Cutis. Presented by Dr. SIMPSON.

A case from the clinic of Dr. Zeisler. This patient, a woman forty-two years old, exhibited a dermal lesion on the right hand which had been present for two years. It began on the dorsal aspect of the proximal phalanx of the index finger as a small warty growth on a red base and gradually spread toward the dorsum of the hand. It had encroached upon the dorsal surface of the proximal phalanx of the index finger and had involved the skin over the first and second metacarpal bones on their dorsal aspect.

At the time of presentation of the case, there was a lesion five by ten centimeters in its greatest dimensions. The shape was irregular and the color bluish-red. It was raised one-half centimeter above the level of the adjacent skin. In places the surface showed a tendency toward a warty development but this feature was by no means marked. The consistency of the lesion was fairly firm. There were no subjective symptoms. An interesting fact and one bearing on the ætiology was the occupation of the patient's husband; he was a meat handler at the stock yards and often brought home meat from there for domestic use. The patient remembered distinctly of having bruised or cut the site of the present lesion several times with meat bones, prior to the development of the lesion.

Alopecia Areata and Vitiligo. Presented by Dr. ORMSBY.

The woman, thirty-nine years of age, stated that her father had suffered with vitiligo. The vitiliginous areas in her case were rather large and were situated on the forearms, dorsal surfaces of the hands, and over the shoulders. The alopecia areata was rather extensive and

had existed for three years. The hair had fallen and regrown several times during that period. The point of chief interest in this case was whether or not there might be some ætiological relationship between the two disorders.

Tubercular Syphiloderm. Presented by DR. QUINN.

The patient was a male, forty-five years old, born in Germany, by occupation a cook. The primary lesion occurred eighteen years ago and had been treated at different times by almost every member of the Society. When the case was presented to the Society there was a lesion which covered an area about two by three inches on the chin extending to the mouth, where some scarring of the mucous membrane of the lower lip had been produced. It presented the warty appearance so often found in blastomycosis but repeated examinations of the pus gave negative results. It also had been treated with X-rays for sycosis.

Lymphangiectodes. Presented by DR. McEWEN.

This case corresponded in every particular to the condition described by Crocker as lymphangiectodes. The girl, seventeen years of age, was born near Vienna, and was operated upon when eleven months old for the removal of a mass of "wild flesh" from the left axilla. After the operation a verrucoid papillomatous growth appeared which displayed a constant tendency to bleed.

When first seen, in July, 1908, the clinical picture was as follows: Under the left arm, about three inches below the apex of the axilla and extending from the anterior to the posterior axillary fold, was a crescentic scar, about four inches long. Upon and about this scar were seated many papillomatous structures, varying in size from a millet-seed to a small filbert, soft and containing a straw-colored fluid. The skin overlying these was either normal in color or dark red, due to the presence of many red puncta, representing loops. The fluid-containing lesions were most numerous about the middle of the scar where a large group was present; in the outlying regions the lesions were more scattered, and for the most part free from vascular redness. A few isolated vesicles were present on the skin toward the breast. On the inner surface of the arm at a point corresponding to the posterior axillary fold could be felt a large mass of (apparently) vessels; the overlying skin was thickly studded with straw-colored and red fluid-containing lesions. The entire area affected was subject to more or less constant oozing and bleeding, giving rise to much discomfort. After receiving a few X-ray treatments, the patient passed from view until the first of the year when she reappeared with a well-marked infection of the axilla, with evidence of pus formation. After evacuation and suitable local treatment, the acute symptoms subsided, leaving the original disorder

considerably improved. When shown to the Society, the lesion on the arm was considerably reduced in size, and many of the vesico-blebs had disappeared.

A course of X-ray treatment was to be given the patient with a view to the obliteration of the vascular spaces.

Lichen Planus Hypertrophicus. Presented by DR. McEWEN.

The patient who came from Dr. Hyde's clinic was a woman who had been shown previously to the Society (Dec. 1907) as a severe case of hypertrophic lichen planus. While the relics of her former trouble were still to be seen, the complaint which was of most importance was a generalized pruritic eruption which had been present several weeks. The flexor surfaces were principally involved; the lesions were papular, some of them flat-topped and angular in outline; all the regions affected had been severely scratched. Many of the arm lesions suggested the presence of the *acarus scabiei*. The patient was three months advanced in pregnancy; the veins of the legs were enormously dilated.

In the opinion of those present, the case was one of acute lichen planus, probably related ætiologically to the pregnancy. A preliminary use of sulphur-containing ointments was suggested to eliminate the possibility of scabies.

Lupus Pernio. Presented by DR. HYDE.

The patient was a young woman, twenty-three years of age, who had suffered with this disorder for nine years. The family history was negative as to tuberculosis. The mother, who was sixty years old, recently suffered from a marked seborrhœic dermatitis of the face, scalp and back. The disease, for which the patient was presented, began on the fingers during the winter nine years previously. Recurrent attacks happened each autumn and lasted until spring. During the warm weather the hands were free. More recently the attacks had become shorter. Four months ago the face and region behind one ear became involved. The patient had lost much weight and was anæmic, the hæmoglobin being seventy per cent. The lesions were erythematous nodules, numbers of which finally suppurated but left no scars. At times they were painful. The patient stated that it took several weeks for one lesion to undergo complete evolution. The lesions on the face closely resembled those found in lupus erythematosus.

Leprosy. Presented by DR. HYDE.

This case was first exhibited to the Society in October, 1907. The disease had remained quiescent under the use of chaulmoogra oil, and the man's general condition was satisfactory.

ERNEST L. McEWEN, M. D., *Reporter.*

CHICAGO DERMATOLOGICAL SOCIETY.

February 19, 1909.

DR. L. C. PARDEE in the Chair.

Tubercular Syphilide of the Face. Presented by DR. SIMPSON.

A woman, aged fifty-one, from Dr. Zeisler's clinic. The eruption began four years ago. Small, red, scaly lumps appeared on the end of the nose and to some extent coalesced. Gradually, by the appearance of new lesions at the periphery, the eruption spread in a "butterfly" shape to the adjacent cheeks.

When the case was presented, the greater part of the nose and both cheeks were involved. Ulceration had occurred in places, but there was no marked destruction of the skin, except at the right ala of the nose which was "notched" by an ulceration about a centimeter in depth.

An interesting point was the statement of the patient that in several cities the diagnosis of lupus vulgaris had been made and she had been treated for long periods with X-rays. This emphasized the striking resemblance to lupus vulgaris. There was no doubt, however, as to the luetic nature of the eruption, although the previous history as to syphilis was absolutely negative.

Epithelioma of the Face. Presented by DR. SIMPSON.

A man, aged thirty-six, from Dr. Zeisler's clinic. The lesion on the right side began two and a half years ago as a small wart-like growth.

When the case was presented there was a lesion about three centimeters in diameter, situated on the right cheek between the angle of the mouth and the ramus of the jaw. The external border of the lesion was hard, infiltrated, and crusted. At the center and internal border, the destructive process had ceased and scarring had occurred. The active external border of the lesion was polycyclic in outline so that a deceptive resemblance to the nodular syphilide was noted.

The presence of a few small pearly nodules in the border and the marked hardness of the lesion on palpation were sufficient to determine the diagnosis.

Vitiligo. Presented by DR. ANTHONY for DR. CAMPBELL.

This was a case of extensive vitiliginous change in the skin of a woman, who gave a distinct history of specific infection eight years ago.

The question of aetiological relationship was not decided.

Acne Necrotica. Presented by DR. McEWEN.

The patient was an ill-conditioned young woman of twenty-two. The lesions were confined to the forehead and were small reddish-brown

papules, which were apparently of slow evolution, and which left areas of slight atrophic scars on disappearance. Marked improvement had occurred under the use of white precipitate ointment locally. The patient had a lame hip which was due to an injury in childhood; it had been pronounced tuberculous by orthopædists. The use of tuberculin as a diagnostic measure was therefore barred, though the eruption resembled somewhat a tuberculide.

ERNEST L. McEWEN, M. D., *Reporter.*

CHICAGO DERMATOLOGICAL SOCIETY

March 19, 1909.

DR. L. C. PARDEE in the Chair.

Lichen Scrofulosorum. Presented by DR. ORMSBY for DR. HYDE.

The patient, who was twenty-one years of age, had suffered with the disorder for two years. One year previously she appeared at the Rush Medical Clinic at which time the lesions were similar to those existing at time of presentation. The diagnosis at that time was made by Dr. Ormsby. Some two weeks ago, she again appeared and independently the same diagnosis was made by Dr. Hyde. The lesions were situated chiefly on the arms, the forearms and dorsal surfaces of the hands, the legs, and the feet; a few were on the fingers and toes and also a few on the trunk. The lesions consisted of bluish-red, moderately scaling papules, fairly persistent. Some of the papules had a central dot and a few were infected. There was no significant grouping of the lesions and subjective sensations were absent. The von Pirquet test was positive. The anomalous feature of this case consisted in the distribution of the lesions.

Some members of the Society considered the case to be an example of erythema multiforme.

Hypertrophy of the Fingers Following Lymphangitis. Presented by DR. PUSEY.

This was a case of hypertrophy of the index and third fingers of the left hand and of the index finger of the right hand following attacks of lymphangitis in a boy eighteen years old. The fingers were densely hard so that on palpation there seemed to be a dactylitis which diagnosis had been several times made. Skiagraphs, however, showed no change whatever in the bones.

Naevus Pigmentosus. Presented by DR. PUSEY.

A case showing a pigmented naevus on the left side of the trunk and thigh in a boy twenty years old, which had only become visible since adolescence. Over the lower part of the naevus there was a moderate hypertrichosis.

Phagedaenic Chancroid. Presented by DR. PUSEY.

A case of an extensive phagedaenic chancroid involving the genitals and contiguous parts of the thighs and abdomen with elephantiasis of the penis in a negro man aged fifty.

Alopecia Areata. Presented by DR. PUSEY.

A case of extensive alopecia areata in a man thirty years old, who showed at the same time many evidences of active later secondary syphilis. The alopecia areata involved the most of the scalp, both eye-brows and the eye-lashes. On its characteristics it had been recognized as an alopecia areata and not as a syphilitic alopecia; subsequently the history had been obtained that he had had the alopecia areata at intervals for many years—long before the infection with syphilis.

Case for Diagnosis. Presented by DR. SIMPSON.

The case which was possibly one of Duhring's disease was from the clinic of Dr. Zeisler. The patient was a negro girl, sixteen years old. The eruption had existed for about four years without much change in its general features. The distribution was quite general, except that the hands, face, and legs, below the knees, were spared. Herpetiform grouping was not marked, although in a few situations, as on the back, there was an ill-defined tendency toward this feature. All parts of the body, except those noted, were covered with a very copious eruption of papules. Here and there were papulo-vesicles and papulo-pustules. Itching was bitterly complained of and was immediately set up by exposure to the air. The scratched skin was not markedly developed, although excoriated and scab-topped papules were in evidence. There was no lichenification of the skin and the lymphatic glands were not enlarged.

Dermatitis herpetiformis was considered the most probable diagnosis.

Duhring's Disease. Presented by DR. SIMPSON.

A case from the clinic of Dr. Zeisler. Male; aged forty-two. Occupation, locomotive engineer. The disease began three years ago. At the time of presentation of the case, there appeared herpetiformly grouped papules, and in a few situations, vesicles. These lesions were distributed on the posterior surfaces of the shoulders, around the elbows, on the extensor surfaces, over the sacrum and on the external surfaces of the thighs. Evidences of pruritus were present in the same situations.

Other noteworthy findings were a large patch of X-ray telangiectasis on the abdomen and a sinus evidently leading to a diseased and probably tuberculous rib. The X-ray telangiectasis was the result of a long exposure for suspected kidney stone three years previously. The sinus was situated on the right anterior aspect of the chest near the junction of

the fifth rib with the costal cartilage and had been present for about six or seven years.

Blastomycosis. Presented by DR. ANTHONY.

This was a case of blastomycosis of the forearm in a woman, sixty-six years old. She was born in Austria and had been in America for more than fifty years. She had always lived in a small town in Iowa. Six months ago she was bitten on the wrist by a mosquito; a furuncle formed which was curetted; the lesion did not heal, but constantly extended until one-third of the forearm was involved. The appearance of the lesion was typical of blastomycosis.

Lupus Vulgaris with Epithelioma. Presented by DR. ANTHONY.

The patient was a man seventy-five years old, born in Germany. Lupus of the right cheek appeared when he was five years old and after seventy years, it had only involved one-third of the cheek. There was a pea-sized epithelioma in the center of the patch.

Lupus Erythematosus of the Scalp. Presented by DR. ANTHONY.

The patient was a woman, thirty-five years of age. Two years ago she had a tooth crowned, following which an area of baldness developed in the right frontal region. When presented to the Society, there were six such areas, the largest the size of a dollar. They were all well-defined, oval, smooth, depressed, slightly atrophic, and telangiectatic. Four of the patches were surrounded with a pale red border in which keratotic plugs were to be seen in the hair follicles, while two of the patches, located in the occipital region, were atrophic and though lacking in stellate projections presented more the characteristics of pseudopelade,—simply a slightly depressed atrophic area without peripheral redness. The tuberculin reaction was positive.

Giant Naevus Pigmentosus. Presented by DR. ANTHONY.

The patient was a boy, seven years old, who presented a mole involving the entire right arm and all of the trunk excepting a strip of skin extending from the axillary space to the pubic region and from the right mammillary line to the axilla. The mole was of the animal pelt variety; pigmented, a chocolate color, covered with a thin growth of poorly developed, but rather long lanugo hairs, and presented in places verrucous and mammillated patches. The borders were well defined. In addition the face, left arm, both forearms and lower extremities were studded with several hundred pea- and dollar-sized moles of the same character. There was no giant growth, mental defect, or arrest of development; a left inguinal hernia was present. There were no lesions in the mouth.

Lichen Scrofulosorum. Presented by DR. ANTHONY.

The patient was a girl three years old; no family tuberculosis history and no previous illness except whooping-cough. When presented to the Society, there was a discharge from both ears; the upper lip was thickened, infiltrated, inflamed, fissured, and covered with crusts; a scrofulous keratitis of both eyes with photophobia, enlarged cervical glands and post-auricular eczema were present. The eruption of lichen scrofulosorum, which was very extensive, involved the entire trunk and extremities. There was a positive tuberculin reaction.

DR. ANTHONY stated that he had reported five cases of lichen scrofulosorum. (*Tr. Am. Med. Assn.*, 1907). He believed that it was more common in America than was generally believed and that a fair sprinkling of cases may be found in cases of bone and joint tuberculosis of childhood.

ERNEST L. McEWEN, M. D., *Reporter.*

REVIEW of DERMATOLOGY AND SYPHILIS

Under the charge of GEORGE M. MacKEE, M. D.

GENERAL THERAPY.

By DR. EDWARD PISKO.

Hydriatic Treatment of Burns and Other Defects of the Skin. W. WIRZ
(*Therap. Monatsh.*, 1909, xxiii, No. 6, p. 350).

Wirz relieves the pain and supplies an artificial skin with a piece of thin linen fitted closely over the wound and kept constantly moist and cold by a compress, which must be renewed, at first, every minute, later every five minutes; the second day every hour or so. The dressing is not changed until the third day. The resulting scar is much less disfiguring than with other methods of treatment.

On the Use of Calcium Salts in Diseases of the Skin. BETTMANN.
(*München. med. Wchnsch.*, 1909, lvi., No. 25, p. 1273.)

Upon the recommendation of A. E. Wright (1896) to use calcium chloride in hæmorrhages and in urticarial conditions, Bettmann has used calcium lacticum for one and one-half years in a little over seventy cases. The formula is given: Calcium lacticum 10.00, aqua distillata 200.00 (5% solution). One to two table-spoonfuls one hour before meals for three to four weeks. Bettmann had good results in purpura, urticaria, pruritus senilis and herpes gestationis without having convinced himself that it was the faculty of the calcium salt to increase coagulation of blood. He relates the case of a man of thirty-six with cutaneous hæmorrhages for two years which stopped as a result of four weeks' calcium lacticum medication. Five cases of pruritus senilis with-

out any change of surroundings, climate, diet, or mode of living were greatly benefited. In three of these five cases with recurrent itching, calcium lacticum was again given and the pruritus ceased. In a case of herpes gestationis with very severe symptoms during two previous pregnancies, the disease appeared in the fourth month. Calcium lacticum was given for several weeks; the cutaneous condition disappeared and there was no recurrence.

Lupus Vulgaris: Its Treatment. C. БОЕСК. (*Monatsh, f. prakt. Dermat.*, 1909, xlviii, No. 10, p. 439).

The author obtained his best results by using pyrogallol, resorcin and salicylic acid, equal parts of each in a soft paste which can be easily applied in any location without interfering with the daily vocation. The paste, after being covered with a light layer of cotton, is allowed to remain on the part for a week or ten days. The applications are repeated until the lesions heal.

The Effect of Scarlet Red, in Various Combinations, Upon the Epitheliation of Granulating Surfaces. J. S. DAVIS. (*Bull. Johns Hopkins Hosp.*, 1909, xx, No. 219, p. 176).

There were sixty cases treated, grouped as follows:

Partial skin graft	7 cases
Ulcer following operation for infection.....	10 cases
Ulcer following burn	11 cases
Traumatic ulcer	10 cases
Specific ulcer	8 cases
Varicose ulcer	7 cases
Ulcer following operation for ingrowing toe-nail..	3 cases
Bed-sore	2 cases
Miscellaneous ulcers	2 cases

Two to twenty per cent. scarlet-red ointment was used with a simple vaseline base. A light dressing of sterile gauze secured by a bandage completes the procedure. This dressing should be removed within forty-eight hours and replaced by zinc or boric acid ointment for twenty-four hours, then the application should be repeated. In many of the cases healing was rapid under this treatment.

Boils: A Note on Their Treatment. GEORGE T. JACKSON. (*Am. Jour. Med. Sc.*, 1909, cxxxvii, No. 6, p. 888).

A pointed piece of wood, absorbent cotton and a 95 per cent. solution of carbolic acid is all that is necessary for the treatment of ordinary boils. The lesion should not be squeezed after opening nor should it be poulticed. The pointed applicator containing the carbolic acid is forced into the centre of the lesion and this is followed by a five per cent. salicylic acid ointment as a dressing. If the patient comes before the boil has pointed, it may be aborted by injecting into it a drop or two of a 5 or 10 per cent. solution of carbolic acid or touching the surface with

95 per cent. carbolic acid, while the 5 per cent. salicylic acid ointment is to be used as a dressing. No internal medicine is given as the sole cause of the boils is a local infection.

Freezing as a Therapeutical Measure; Liquid Air and Carbonic Acid Snow. GEORGE T. JACKSON and S. DANA HUBBARD. (*Med. Rec.*, New York, 1909, lxxv, No. 16, p. 633).

The authors first call attention to the fact that A. C. White employed liquid air therapeutically in 1899. They then describe the production, physical properties and methods of employing both the liquid air and the carbonic acid snow. They find the latter substance much superior for many reasons. Nævi, epitheliomata, especially of the rodent ulcer type, verrucæ, papillomata, hypertrophied scars, tuberculosis verrucosa cutis, chloasma and scrofuloderma have all yielded to the freezing process. For lupus erythematosus it is positively the best treatment.

SYPHILIS OF THE SKIN AND MUCOUS MEMBRANES.

BY UDO J. WILE, M. D.

Papulo-Erosive Syphilide Ten and Thirteen Years After Infection.

JAN PAPÉE (*Monatsh. f. prakt. Dermat.*, 1909, xlviii, No. 8, p. 347).

Papée reports two cases from his private practice, in which secondaries occurred many years after infection. His first case was characterized by recurring eruptions and mucous membrane lesions, which appeared during the periods of rest in the treatment, but which always responded readily to the subsequent treatments. Ten years after the first observation, the patient was again seen with mucous patches of the mouth, lips, soft palate and tongue, and serpiginous ulcers of the scrotum. The patient had married during this time, his wife had borne him two perfectly healthy children and, according to his statements, she had never shown any symptoms of syphilis. The second case resembled the first very closely. There were recurrent syphilides occurring over a period of thirteen years of intermittent treatment and, at the end of that time, the patient presented papules on the scrotum and leucoplakia oris. The author excludes in both instances the possibility of reinfection, and emphasizes in his two cases, the simultaneous appearance of early and late syphilides, occurring so long a time after the primary infection.

Hidden Syphilitic Lesions. HANS VÖRNER (*München. med. Wchnschr.*, 1909, lvi, No. 14, p. 7180).

Vörner details three interesting cases, in all of which he was able

to demonstrate the *spirochæta pallida*, in lesions not clinically syphilitic. The first case was that of a "puella publica," who had infected one of his patients with syphilis. The woman was by anamnesis definitely an old luetic, but on examination revealed nothing but an apparent gonorrhœal erosion of the portio vaginalis. From this erosion *spirochætæ pallidæ* were found in stained smears. The second case developed secondaries while under treatment for gonorrhœa, and smears made in this case, from an apparently gonorrhœal erosion on the portio vaginalis, also showed the *spirochætæ pallidæ*. Microscopic examination of the diseased area itself was not made, but the author insists that clinically in neither case was there anything to suggest a syphilitic lesion. The third case was that of a man with latent syphilis, and a gonorrhœal infiltration of the urethra; smears made from the latter lesion showed also the organism of syphilis. The author calls attention to the lesson to be drawn from his cases, namely, that other coincident infections in a syphilitic individual may be the means of spreading the virus of syphilis further; great care should therefore be given to the treatment of gonorrhœa and other infections in a patient who has once had syphilis.

Results of the Inoculation of Primary Syphilitic Material into Subjects Suffering with Tertiary Accidents. QUEYRAT and PINARD. (*Bull. Soc. franc. de dermat. et de syph.*, 1909. xx, No. 5, p. 1560).

Against the theory advanced on the basis of hundreds of experiments made by Ricord, Saunier, Diday and others, namely that previous infection conferred immunity in syphilis, Queyrat and Pinard give the results of their inoculation experiments. They repeated the experiment of Finger and Landsteiner of sewing into the skin of a patient with tertiary syphilis, material from a primary sore, and, as in the experiments, of Finger and Landsteiner, they noted a positive result. The patient had acquired his syphilis seven years previously and at the time of inoculation was suffering from ulcerative lesions of the nose, epiglottis and larynx. Into the subclavicular fossa of the left side the authors sewed a small piece of a completely cicatrized preputial hard chancre. The operation was done with great care to avoid all chance of secondary infection. Seventeen days later a small erosion appeared at the site of inoculation and this gradually increased in size until its final dimension was about that of a half dollar. In appearance it resembled a typical and sharply defined, ulcerated gumma. The *spirochæta pallida*, however, could not be demonstrated in smears from the lesion. The authors believe their experiment is important in showing that immunity in syphilis against reinfection is not absolute, and they advance the hypothesis that possibly many of the so-called cases of "chancre redux"

are really new implantations of the spirochæta in an organism partially immune.

Hypertrophic Scars Following a Previous Papular Syphilide. ALEX.

RÉNAULT. (*Bull. Soc. franc. de dermat. et de syph.*, 1909, xx, No. 5, p. 145).

Before the French Dermatological Society in Paris, Rénauld presented a patient suffering with ulcerating gummata of the leg. In addition he showed, scattered over the thorax, numerous projecting oval and irregular, glistening scars. The author at first believed them to be the healed lesions of sporotrichosis, but on questioning the patient the latter affirmed that the lesions appeared thirteen years previously, following immediately upon and on the site of a secondary papular syphilide. The patient, however, showed a tendency to keloid formation on the site of an injury which had occurred previous to his acquired syphilis.

The Frequency of Chancres in the Supra-pubic Region and at the Base of the Penis Among the Native Musselmen of Algeria.

M. J. BRAULT. (*Bull. Soc. franc. de dermat. et de syph.*, 1909, xx, No. 5, p. 155).

Noting that both hard and soft chancres were very common in the supra-pubic region and at the base of the penis among the natives of Algeria, Brault investigated the cause of this. He believes the explanation lies in the fact that among these people there is a quasi-ritual custom of shaving the pubes. In a few instances he could demonstrate minute cuts and injuries inflicted by the razors, and he is convinced that it is through such inflicted injuries that the virus finds its portal of entry.

BOOK REVIEWS.

A Manual of Practical X-ray Work. DAVID ARTHUR, M. D., D. P. H. Medical Officer in charge of X-ray Department, West London Hospital and Lecturer on Radiology, West London Post-Graduate College, and JOHN MUIR, B. Sc., Ch. B. & B. Sc. (Pub. Health). With about 120 illustrations. *Rebman Company*, New York, 1909.

Physicians and students who desire a short, accurate and easily digested practical book on X-ray work in preparation for more extensive study, or in an effort to ascertain the value and limitation of the practice of radiology will find in this book a very useful guide. The contents are the result of years of experience coupled with a knowledge of the literature. The various subjects are well presented in a concise and conservative manner. Out of a total of 244 pages only twenty-three are devoted to radiotherapy, so that the book is of more value to the physician who desires a practical knowledge in radiography than one who contemplates employing the Roentgen ray as a therapeutic measure. The description of apparatus, both intermediary and accessory, is very complete for such a small book, although like most foreign works the chapter on static machines is very weak. This the authors acknowledge and refer the reader to exhaustive treatises. The chapters on apparatus, diagnosis, orthodiography, interpretation, etc., are extensively illustrated, while pictures and case reports are omitted from the section on therapy. In this last-mentioned subject only the diseases known to be amenable to X-radiation are given consideration. The authors recommend the use of the Sabouraud pastile in the treatment of tinea tonsurans and favus. They also call attention to the fact that electrolysis or cataphoresis with chloride of zinc or sulphate of copper may, in the future, supercede X-radiation in these diseases. They doubt that the X-ray has any direct action upon bacteria, although they do not think this question has been proved. The manuscript was evidently in the publishers' hands before the recent interesting experiments in connection with the opsonic index were called to their attention, because we find that although the authors anticipated such work they had seen no reference to it. Although the section devoted to therapy is short, anyone carefully perusing the entire volume will absorb considerable useful information and will acquire, as the authors have intended that they should, a broad, conservative, accurate, although somewhat limited knowledge of the subject. There are several typographical errors that should be corrected in the next edition and instead of "about 120 illustrations," which appears on the title page, it would be just as well to give the exact number. The book is well printed on a good grade of paper and is substantially bound.

G. M. M.

Kompedium der Röntgen-Therapie. DR. H. E. SCHMIDT, *August Hirschwald*, Berlin, 1909.

In this little book of 158 pages, the author covers the subject of radiotherapy concisely, yet lucidly. The first half of the compend is devoted to apparatus, methods of application, means of protection against the rays to patient and physician, the results obtained from exposing the lower animals to the X-rays, deleterious effects of the rays upon the human organism and the forensic aspect of X-ray injuries. The second half deals with Röntgen-therapy proper.

Especially thorough is his description of the various devices on the market,

for the measuring of the quality and quantity of X-rays, and the methods of exact dosage—a highly important subject which has not received as much attention here as it has abroad. The author prefers the radiometer of Sabouraud and Noiré, used in conjunction with a “medium” tube, to all other forms of ray-measuring instruments, and uses this apparatus exclusively in his own practice. Under the caption of “Indications” he discusses the various diseases which are especially suited for Röntgen-therapy, and includes some dermatoses which most American dermatologists still treat in the old-fashioned manner; among these are psoriasis, eczema, acne, seborrhœa, furunculosis, and a few others. Still, he advises the employment of other remedies in conjunction with the X-ray exposures. He does not use the X-ray for lupus erythematosus.

Among the internal disorders which are amenable to X-ray-therapy, the author discusses the various ductless-gland diseases, tuberculous adenitis, prostatic hypertrophy, myoma uteri, carcinoma and sarcoma of internal organs, etc.

Throughout the booklet, the author lays stress on the proper limitations of Röntgen-therapy, and refrains from exaggerating its importance in the treatment of medical and surgical diseases.

F. W.

Tropical Medicine with Special Reference to the West Indies, Central America, Hawaii and the Philippines, Including a General Consideration of Tropical Hygiene. THOMAS W. JACKSON, M. D., Lecturer on Tropical Medicine, Jefferson Medical College, Philadelphia. Member of the American Society of Tropical Medicine. Lately Captain and Assistant-Surgeon, United States Volunteers. *P. Blakiston's Son & Co.* 1907.

In his introduction the author states that his purpose has been to prepare, for American medical men and students, a simple and systematic presentation of the known and determined facts concerning such tropical diseases as are found within the boundaries of our own country.

Since the extension of our tropical possessions in both hemispheres, interest in tropical medicine has been aroused not only in official medical circles, but also on the part of many civilian practitioners all over the country, as they have been called upon more and more frequently to diagnose cases of imported tropical disease brought home along the new paths of commerce, or by our returned soldiers. Coincidentally, with the imported cases, medical workers have recognized and identified in certain sporadic and occasional diseases not previously well understood, maladies well-known in the tropics and hitherto believed to be peculiar thereto, as dysentery, both amœbic and bacillary, and ankylostomiasis.

The book comprises 533 pages with 106 good illustrations. It contains an excellent introductory chapter on tropical hygiene, in which due attention is paid to personal hygiene, the influence of mosquitoes and other insects in the causation of disease, and preventive measures. This is followed by a discussion of I, systemic diseases, chiefly bacterial in origin, including cholera, beriberi, plague, dengue, tropical dysentery, leprosy, malaria, Malta fever, and yellow fever. II, animal parasitic diseases, as ankylostomiasis, filariasis, trypa-nosomiasis, Bilharzia disease, endemic hæmoptysis, guinea-worm disease, liver and intestinal fluke worms, intestinal cestodes and nematodes. III, diseases of undetermined and uncertain causation (local and constitutional) and skin diseases. This section includes acute febrile icterus, febrile tropical splenomegaly, tick fever, epidemic dropsy, tropical ulcer, yaws, tropical sloughing phagedæna, mycetoma, climatic bubo, anihum, goundon, and the following group of the more prevalent cutaneous affections: pemphigus contagiosus, tinea imbricata, tinea versicolor, pinta, miliaria, sand-flea bites and leech bites.

The results of ætiological research are given, and appended to many of the

chapters are instructions for laboratory diagnosis. There is also an appendix giving the list of essential articles for laboratory work in tropical diseases. A valuable and not uninteresting feature consists in the author's personal experience in the tropics with such diseases as cholera, malaria, etc.

The book is very readable and the author has obviously attained his object in the guidance of the two paramount ideas which determined the size, scope and character of his work, namely, utility and simplicity. E. C. J.

Dermatologische Propädeutik. Die entzündlichen Erscheinungen der Haut im Lichte der modernen Pathologie. Sieben Vorlesungen für Ärzte und Studierende. PROFESSOR DR. S. RÓNA. Berlin, *Verlag von Julius Springer*, 1909.

A book from so distinguished a writer as Professor Róna is received with much pleasure by his colleagues in America.

The author, in an introduction to the study of dermatology, gives an excellent presentation of the inflammatory manifestations of the skin in the light of modern pathology. Professor Róna reminds that dermatology is not a science apart, but has close affinities with other branches of medicine and especially calls for an application of the principles of general pathology, occasionally strayed from or slighted by dermatologists. Conversely, pathology owes much to dermatology, the latter offering a research field of no mean rank.

It is almost impossible to abstract or analyze these preliminary studies, for to discuss one portion would fail to do justice to another. The majority of skin lesions being inflammatory in origin, the author presents the following scheme:

In lecture I he considers the variety of causes of inflammation. In II he deals with disposition, constitution and idiosyncrasy; III and IV cover acute and chronic inflammation in general and the function of inflammation; V and VI, the clinical forms of acute inflammation of the skin, their course and termination. Lecture VII discusses the clinical forms of chronic inflammation of the skin, their course and termination, with concluding remarks on the spontaneous regression of cutaneous inflammatory manifestations.

There are only 143 pages, with a full bibliography appended of recent literature bearing on the histology, physiology and pathology of inflammation. The book is written with charming conciseness and directness and fills a hiatus in dermatological literature not only for the student, but for the full-fledged dermatologist who will find in it a welcome addition to his working library.

J. A. F.

OBITUARY.

H. RADCLIFFE-CROCKER.

DR. RADCLIFFE-CROCKER died quite suddenly of heart failure, August 22, 1909, while on a holiday in Switzerland.

Dr. Radcliffe-Crocker was born in Brighton, England in 1845. He received his early education in a private school near his home and soon after served an apprenticeship with a surgeon. He later entered as a student at the University College Hospital, London, where he had a brilliant career, gaining honors and a university scholarship. He received his degrees of M. B. and B. S. in 1874 and in the following year that of M. D. After graduating he held junior hospital appointments and subsequently was resident medical officer at the University College Hospital, in which position he became associated with Dr. Tilbury Fox and thus began his interest in diseases of the skin, to the study of which he now gave his special attention. On the death of Dr. Tilbury Fox, nearly thirty years ago, he succeeded him as a physician to the Skin Department of the University College Hospital. For many years Dr. Radcliffe-Crocker was also physician to the East London Hospital For Children at Shadwell.

These appointments gave him ample opportunity and a large field to devote himself to his chosen specialty on the very broadest lines. His text-book, *Diseases of the Skin*, which first appeared in 1888 and has now reached the third edition, is perhaps the most comprehensive and original treatise on dermatology in the English language. It embodies the results of much original and histological work and a very extensive clinical experience, appealing both to the general practitioner and the student of dermatology. In addition to this work, his very complete *Atlas of the Diseases of the Skin*, which was published in 1893-1896, and the *Lettsonian Lectures on Inflammations of the Skin*, he contributed many monographs to various medical publications. Dr. Radcliffe-Crocker was associated with many medical societies and was active in public work. His opinion was highly esteemed by his colleagues the world over and it was always a pleasure to hear his clear and concise views presented before the various international congresses. He had many of the qualities of the ideal physician in that he possessed rare judgment, was modest as to his intellectual ability and achievements, always courteous in his intercourse with the fellow members of his profession, and keenly alive to the interests of his patients.

Dr. Radcliffe-Crocker made several visits to this country in attendance on the meetings of the American Dermatological Association and

the Sixth International Dermatological Congress, where he was always a welcome guest because of his delightful personality as well as his contributions, which were listened to with great respect and interest. His death is mourned by his American colleagues by whom he was held in such high esteem and admiration.

J. A. F.

In the *British Medical Journal* for September 11, 1909, Dr. Pernet pays the following tribute to Dr. Radcliffe-Crocker, with whom he was intimately associated for many years:

I am desirous of adding a few words as a tribute to the memory of my friend and teacher, Dr. Radcliffe-Crocker. We had worked together for the last seventeen years, and always harmoniously. I have, therefore, had a better opportunity than any one else of being impressed by his greatness as a dermatologist and as a physician. He was no narrow specialist, but took in all the points of a case, and I consider it a privilege to have been associated with so broad-minded and far-seeing a clinician. His all-round knowledge of cutaneous diseases in their varied aspects and multiform phases was enormous. But I consider that he was specially pre-eminent in diagnosis, prognosis, and treatment; his clinical acumen and his skill in adapting remedies to the protean manifestations of morbid conditions of the skin were of the very highest order, and in my experience unsurpassed by any one practicing this great branch of medicine. At the meetings of societies and at international congresses the opinion of Radcliffe-Crocker in difficult and unusual cases was eagerly invited, for it was felt that if any light could be thrown on the matter, he was the one man able to shed it. As a teacher he took great pains to make a very difficult subject as clear as possible by making students work out cases for themselves, in order to train their powers of observations and reasoning, but his searching and at times acutely stinging cross-examination was not always appreciated by the youthful victims of this Socratic method, although it drove home a point that would probably never be forgotten. *Experto crede Roberto*. I had the pleasure of helping Dr. Radcliffe-Crocker in various ways with the second and third editions of his splendid *Diseases of the Skin*. This gave me an opportunity of seeing another side of his professional activity. His powers of synthetizing and focussing his vast experience, together with his indefatigable industry in reading and classifying the almost endless contributions of dermatological writers all over the world impressed me greatly. This was specially noticeable in the preparation of the third edition, a Herculean task this wrestling with a heterogeneous mass of material, which had to be assimilated and boiled down mentally in the midst of a large and busy practice and multifarious engagements. His *Diseases of the Skin* will go down to future generations in the world of dermatology as a monument of sound knowledge,

industry, and honesty of purpose and execution. I should like to take this opportunity, too, of saying that his wife's untiring assistance in many ways—as in the preparation of his book, for instance—was invaluable to him in coping with the large amount of work he had to deal with in various directions. With regard to treatment he always took the keenest interest in new methods, and kept himself abreast of the times with unflagging energy. In the records of dermatology his name will go down to posterity as a master. Dr. Radcliffe-Crocker was undoubtedly the foremost dermatologist of Britain and her great Empire, and his position second to none among the dermatologists of other nations. I was looking forward to his return from Switzerland recuperated by the rest and the mountain air. It was not to be. I shall never see my friend and teacher again, but the memory of his courage as a worker and his many qualities will remain with me, *Æternum vale!*

NOTICE.

At the recent International Tuberculosis Congress held in Washington a gold medal was awarded to Professor Eduard Lang of Vienna, for his work in tuberculosis of the skin.

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THE ÆTIOLOGY OF PSORIASIS.*

By S. POLLITZER, M. D., New York.

A QUARTER of a century ago Auspitz, one of the clearest minds of the Vienna school of dermatologists, said, "Wass Psoriasis ist weiss bis Heute noch kein Mensch!" The last word on the subject emanates from the gifted pen of Darier, in his "Précis de Dermatologie," still warm from the press, "Sa nature est totalement inconnue." With these views in mind it must be evident to you that I accepted the flattering mandate of the Council of this Association to open the discussion on the subject of the ætiology of psoriasis with considerable trepidation and no little pessimism. And yet, while I have not dreamed for a moment of solving this riddle of a century, and you, gentlemen, will surely not demand this of your reporter, it is, nevertheless, a good thing to take stock of our knowledge, to elucidate to ourselves what we know and what we do not know, to pass in review the common theories applying to our subject, and to make clear to ourselves how much is based on the solid ground of truth and how much is simply the lingering shadow of traditional dogma or ancient prejudice.

Leaving out of consideration, as unworthy of serious discussion, a great number of hypotheses concerning the nature of psoriasis—such as that it is an attenuated form of syphilis, that it is an effect of malaria, that it is due to hypothyroidism, etc.—we have a few important theories of its origin to deal with: (1) that it depends on the constitutional changes associated with rheumatism and gout; (2) that it depends on a disturbance in the nervous system; (3) that it depends on a hereditary predisposition; (4) that it is due to purely local and external causes.

The theory that gout or rheumatic conditions stand in a causal relation to psoriasis is supported directly or indirectly by a great number of dermatologists. It must be said that the conceptions of rheumatism and gout held by many authors, especially of the older generation, are extremely ambiguous and indefinite, and not at all

* Read before the 33d Annual Meeting of the American Dermatological Association, Philadelphia, June 3-5, 1909.

in accord with present views as to the nature of these diseases. The mere fact that gout and rheumatism are so commonly grouped together is sufficient evidence of the vagueness of their ideas. But some indefinite notion of faulty metabolism underlies all these notions and in practice has had a marked influence on the treatment of the disease by drugs and especially by diet. What are the facts in regard to rheumatic or metabolic disturbances in psoriasis? It may be briefly said that the whole argument rests on the occasional association of one or another of these conditions with this dermatosis.

The literature on the subject is considerable. Bourdillon, a pupil of Besnier, has made an elaborate study of these relations. In a small number of cases of psoriasis—estimated as about five per cent.—there are found various disturbances, such as neuralgia, myalgia, etc., and articular troubles ranging from a simple arthralgia to an arthropathy with visible deformities. These disorders sometimes antedate the psoriasis, sometimes are coincident with the first attack and more often follow the establishment of the psoriasis. The arthropathic disturbances are presumed to depend on a functional disturbance of the nervous system, peripheral or central, and it is through the agency of the nervous system that the skin is prepared for the outbreak of the psoriasis. In this brief summary of one of the most important works on the subject we have such a *mélange* of false pathology, illogical deductions, and unfounded speculation that it scarcely seems worth while to attack it. Neuralgia and myalgia are totally distinct conditions, and the former certainly has nothing to do with rheumatism. To attribute a chronic articular rheumatism to a hypothetical functional disturbance of the nervous system is, in the present state of our knowledge, simple nonsense. Rheumatism is an extremely common affection and psoriasis is not altogether rare, and both are essentially chronic diseases; to find the two conditions occasionally associated is only natural and has not necessarily more significance than that a psoriatic should occasionally suffer from headache or indigestion. I venture the assertion that tuberculosis is far more frequently found in psoriatics than is rheumatism, but no one has thought of regarding tuberculosis as a causative factor in psoriasis.

How is it with the evidence of metabolic disturbance in relation to psoriasis? Bulkley is "convinced that faulty metabolism is at the bottom of psoriasis," and attaches great importance to the examination of the urine, especially in regard to its uric acid content. In the first place it must be pointed out that his examinations of the urine were, for the most part, made on single specimens rather

than on the total renal output, and are on that account without much value, and in the second place his results, to quote from J. C. White's discussion (*Tr. Am. Dermat. Assn.*, 1899, p. 34) of Bulkley's paper read before this Association, "show such great disparity as regards the quantity and constituents of the urine . . . that no deductions of value can be drawn,"—an opinion in which I heartily concur. The notion that uric acid is an index, or, even more, the sole index, of disordered metabolism, is a relic of the ancient theory that gout is due to an increased production of uric acid or to its deficient elimination, a theory which has been experimentally disproved. The greatest discharge of uric acid is found, for instance, in leukæmia and in the stage of resolution of pneumonia,—conditions which have, of course, no relation to gout, nor, it may be added, to psoriasis. The sole investigations made on the question of metabolic disturbance in psoriasis, at all complying with the rigid requirements of modern methods, were presented by Johnston and Schwartz at the Sixth International Dermatological Congress. The nitrogen intake and output were determined before treatment and at intervals throughout the course of the disease. The nitrogen of the twenty-four hours' urine was determined *in toto* and also in its partition among the various nitrogenous constituents of the urine,—urea, uric acid, ammonia, kreatinin, etc. The results, contrary to the authors' expectations, showed that in psoriasis there was no recognizable disturbance in the nitrogen metabolism of the system. These results are final and should forever put an end to the idea of metabolic disturbance, at least so far as concerns the most important elements in metabolism, the nitrogen compounds.

As to morphological changes in the blood, some earlier writers (Zelenew, *Monatsh. f. prakt. Dermat.*, v, p. 21), found that the red blood corpuscles and the hæmoglobin would fall with the spread of the disease and would rise as the disease disappeared; the white blood corpuscles following the opposite curve. Quinquaud found similar results. Later observers have not confirmed these results. Canon (*Deutsch. med. Wchnschr.*, 1892), and Zappert (*Ztschr. f. klin. Med.*, v, p. 23), found an increase in eosinophiles. Rille found an increase in some cases and normal figures in others. Peters (*Dermat. Ztschr.*, 1897), found no variation from normal figures. The general opinion to-day is that the blood changes in psoriasis are inconstant and without significance.

The facts in regard to the chemical and morphological changes in the blood are only what might have been expected. I can understand that such processes as an erythrodermia or a dermatitis her-

petiformis, developing suddenly and involving large tracts and almost any portion of the integument, or even the whole of it, may be the effect of a disorder in the circulating medium; but that a simple parakeratosis, limited perhaps to one or two small circumscribed areas, should be due to a disorder involving the entire economy, is to my mind an impossible conception.

The idea of disordered metabolism in psoriasis is, consciously or unconsciously, at the bottom of the practice common in America, England, and France of treating the patients by what is called regulating their diet. Now, as to the value of dietary treatment in psoriasis, I am treading on delicate ground before this audience, but I desire only to mention the fact that in Germany and Austria no attention whatever is paid to the diet, and I venture the assertion that the therapeutic results obtained by those who treat their cases by external remedies alone are fully as good as those obtained by our colleagues who use the same external remedies and in addition diet their patients. Stated mathematically:

$$\text{External treatment} + \text{diet} = \text{cure};$$

$$\text{External treatment} = \text{cure}.$$

What then is the value of diet? Evidently zero! As bearing on the question of diet, the occurrence of psoriasis in different countries of the globe among peoples of different dietary habits is of interest. The disease is said to occur in all parts of the world; Polynesia, Anam, South America, and Iceland are named by Audry. Unfortunately we have definite figures of the proportion of cases for only a few localities. The statistics of this Association are the largest and most extensive of any. They cover a total of six hundred thousand cases of skin diseases from the important centers of population throughout the country over a period of thirty years, and show that psoriasis constitutes about two and three-fourths per cent. of our cases of skin diseases. For other countries we have only reports from single observers. Anderson in Scotland found a little over 7% of psoriatics; Nielssen in Denmark about 6%; Audry in France a little less than 5%; Crocker in England 6 $\frac{3}{4}$ %. These figures are striking! Five to seven per cent. in various countries of Europe, less than three per cent. in the United States. The per capita consumption of meat is greater in the United States * than in any of

* The *per capita* consumption of meat is given in Bulletin 55, Bureau of Statistics, United States Department of Agriculture, October, 1907, as follows: United States, 186 pounds; United Kingdom, 115 pounds; Germany, 99 pounds; France, 79 pounds; Denmark, 76 pounds.

the countries for which we have reliable statistics, yet psoriasis is distinctly less frequent with us than it is elsewhere. If any conclusion may be drawn from these figures, it is that meat-eating is a protection against psoriasis!

Some observers think that hyper-alimentation,—excessive eating in general—plays an important rôle in the causation of psoriasis. On this point Audry says: “In the territory of which Toulouse is the centre but little meat is eaten, the people are habitually sober, gout is very rare, and yet psoriasis is as frequent as in other countries,” and, it may be added, more frequent than in the United States, where the favorable conditions of existence would naturally lead to excessive alimentation.

But the dietists are not easily pinned down to definite facts; if it is not meat, if it is not excessive eating, it is something else wrong in the diet; at any rate, it is certain that many cases of psoriasis are benefited by a change in diet. The testimony on this point is strong and we cannot ascribe it all to faulty observation. I shall come back to this matter later. But I do deny the significance of diet as a factor in the causation of psoriasis. We all know that ringworm of the scalp disappears spontaneously at the time of puberty and is practically unknown in the adult; our dietists would logically conclude that ringworm of the scalp is caused by the presence of undeveloped spermatozoa or ovules in the testicles or ovaries of their patients! No, gentlemen! what we eat does not cause psoriasis.

The second great ætiological factor in psoriasis appears from the literature of the subject to be disturbances in the nervous system. These seem to be of a great variety in their nature. On the one hand they may be purely mental or emotional, on the other they may be such grave disturbances as occur in epilepsy, melancholia, etc.; and finally, there are numerous reports of cases occurring after severe systemic infections, variola, scarlatina, etc., or in association with pregnancy and lactation, in which the nervous system is presumed to act as an intermediary between the depressed condition and the cutaneous lesion. If you smile at this it is not my fault! Besnier is a firm believer in the rôle of the nervous system. He says that nervous shocks of all kinds—which, if they do not produce the cutaneous disorder, may at least be capable of doing so in his conception of the disease—are noted sufficiently often and in such immediate relation to the psoriasis as to leave no room for their rejection *a priori*. The nervous shocks he refers to are emotional,

such as fright, chagrin and physical and mental commotion, as in a railway accident. Here is a striking example taken from Audry: a mill-hand falls into the chute leading to the grindstones; he is rescued, narrowly escaping a terrible death. The next day he suffers from pruritus; thirty-six hours later the first papule appears, and thirty-eight days later he is seen to have a papular, pruriginous, generalized, typical psoriasis, from which he says he had never suffered before. Audry attaches no importance to this latter statement, dismissing the matter curtly with the remark, "But what does he know about it?" Facts of this kind might be multiplied; Huelz and Leloir have collected a number of examples.

These facts cannot be denied, but in the first place it must be said that in relation to the total number of cases of psoriasis they occur in a proportion absolutely infinitesimal, and in the second place we find it so wholly impossible to conceive a rational theory of the direct influence of the mental shock on the development of the psoriatic patches that it would seem more reasonable to regard their association as accidental.

Polotebnoff (*Monatsh. f. prakt. Dermat.*, 1891, I. E. H.), in an elaborate paper in which he discusses the various hypotheses of the ætiology of psoriasis, cites numerous examples in which he finds hysteria, epilepsy, catalepsy, melancholia, and various neuropathic stigmata in the antecedents or collateral branches of psoriatics. In his opinion psoriasis is one of the manifold symptoms of a vasomotor neurosis in which the disturbances in the circulation, just as they occur in various organs of the body, sometimes extend to the skin. All the various causes enumerated in this connection have a disturbance of the central nervous system as a common factor.

In answer to this view I should say that with the liberal interpretation that Polotebnoff puts on his facts it is not difficult to find evidence to fit his theory. Probably a parallel series of data could be obtained for any other chronic disease of the skin. This hypothesis of Polotebnoff is analogous to the view of Weyl (*Ziemssen's Handbuch*, xiv, No. I, p. 501), who thinks it probable that psoriasis depends on a congenital functional weakness in the regulatory centre of nutrition for the skin which reacts on irritation, the process in the skin being only the peripheral expression of the central disturbance. But unfortunately there is no regulatory centre of this kind; and of all such "theories" it may be said that they serve only to demonstrate their author's ingenuity—while they lack every foundation in a reasonable pathology.

Psoriasis has been observed from the time of Alibert to the present day occasionally following a systemic infection,—variola, scarlet, morbilli, intermittens, etc. No doubt! It teaches a valuable lesson to read some of these older views. In an analysis of 327 cases of psoriasis Poor in 1878 (*Vrtljschr. f. prakt. Heilk.*, Prag., 1878),—before the discovery of the protozoon of malaria—found that in all but sixty-four cases there had been an antecedent malaria, neuralgia, or rheumatism, and concludes that psoriasis is related to malaria as syphilitic psoriasis is related to syphilis!

Lactation and pregnancy have been noted as factors in the production of psoriasis. If they were factors of any importance psoriasis would be the most frequent disease in the world and certainly would be more frequent in women than in men. But the statistics of most clinics show that the disease affects men in considerably more than half the cases.*

Before leaving this portion of the subject it may be in order to adduce the testimony of the authors on the question of the general health of psoriatics. Under the influence of Hebra it had become the fashion to look upon psoriasis as the sign-manual of good health. Bazin about the same time was teaching that the idea that psoriasis occurs only among the vigorous is a mistaken one. Duhring says that psoriasis occurs under the most divergent conditions of health. Neumann has noticed that the psoriasis diminishes, if in a healthy individual the nutrition suffers from any extraneous cause. Sherwell presented a paper on this question before this Association in 1885 (*Jour. Cutan. and Gen. Urin. Dis.*, iii, p. 310), and the discussion on the subject may be summed up in the statement that the general health of psoriatics is good, bad, or indifferent—in short, about like that of other people.

Of the rôle of the nervous system in the production of psoriasis we may conclude that there is little ground for the assumption of any direct influence; that the cases adduced in favor of this view are on the whole very rare and may be examples of simple *post hoc ergo propter hoc* arguments, that what we know of the direct influence of the nervous system in the production of skin diseases is opposed to this view; and that, at most, the influence of shock, depression, etc., can be only an indirect one.

How is it with heredity? Ever since Willan wrote of *lepra vulgaris*—our psoriasis—"I am convinced by closely attending to a

* Bulkley, males, 58%; Nielssen, 60%; Vienna, 64%; Abraham (London), 37% out of 355 cases.

great number of cases . . . that an hereditary predisposition to it exists," the hereditary transmission of psoriasis has been one of the few generally accepted facts in the ætiology of that disease. Numerous authors have inquired into the numerical relations of psoriasis in the families of their patients. Wilson found evidence of heredity in 30% of his cases; Payne in 22%; Abraham in 16%; Rosenthal in 15%; Nielssen in 25%; Bulkley in 25%. We may fairly conclude that one out of four or five of our psoriatic patients will tell us of other cases in the family. The heredity that affects one child and spares all the others must at least be characterized as capricious. Indeed some observers have seen the disease develop simultaneously in the child and its parent, and Cantrell has seen the father attacked with the disease after his children had developed it. Facts of this kind have led the advocates of heredity as a factor in the disease to shift their ground and to speak of psoriasis as a family disease, or to advocate the theory that psoriasis is the result of a congenital and hereditary malformation of the epidermis—somewhat like ichthyosis in this respect—which reacts to all sorts of external irritants with the production of the psoriatic lesions. This was the theory advocated by Köbner and is approximately that maintained by Audry. It is supported by the occurrence of psoriasis as a family disease, its beginning in the great preponderance of cases in infancy or adolescence; the frequently observed outbreaks following traumatism, scratching, tattooing, vaccination, zoster, etc., and the indefinite recurrences.

These speculations explain nothing; they are merely a circumlocutory way of saying that psoriasis is hereditary. Our views on heredity have undergone considerable change in these post-Darwinian days. Let us accept all the facts adduced as favoring heredity. What do they prove? Simply that psoriasis occurs in several members of a family in about one-quarter of the cases. To the biologist this would not be admitted as evidence at all, but to us medical men loaded down with the traditions of a thousand years, it seems to have weight. It is not a hundred years since the profession stopped gravely talking of the "fermentescible substance," the "acid principle" which, deposited in the skin by the circulating blood, produced scabies, very much like the rheumatic theory of psoriasis to-day. It is within the life of every one in this audience and within the memory of most of you that the causation of leprosy and tuberculosis was ascribed to some peculiarity of climate or of diet or, above all, to heredity. These historical facts should make us pause. For

my part I am quite as convinced of the significance of heredity in psoriasis as of its importance in leprosy and scabies.

This brings us naturally to a consideration of the last of the theories which we are to consider: that psoriasis is an infectious disease of local and external origin. In arranging our subject for presentation to the Association my co-reporter, Dr. Schamberg, undertook to devote himself particularly to this phase of our question, and I shall therefore pass it over merely with the remark that while the direct evidence of the parasitic nature of psoriasis is still to be found, the collateral evidence has considerable weight. This evidence is based on analogy with known mycotic skin diseases; the development of the lesions, their peripheral extension, their circinate form, their healing or fading out in the centre as in an old colony on a plate-culture, and, finally, on the efficacy of antiseptic treatment. The fact that the disease has rarely, if ever, been successfully inoculated need not deter us from the acceptance of this view; is *tinea versicolor* readily inoculable? The fact that the lesions are often made to disappear under the influence of diet or of thyroid extract or potassium iodide—drugs which powerfully influence metabolism—need not weigh with us who witness the disappearance of a *tinea capitis* with the access of puberty, a process in which there are subtle undetermined changes in metabolism. These influences are explicable on the theory of a change in soil which becomes unfavorable for the development of the parasite, and it is in this way that we may account for the influence of nervous disturbances—if they have any influence at all. But I must leave this part of my subject to my successor.

No discussion of the ætiology of psoriasis can fail to enter into a consideration of the relation of that disease to seborrhœic eczema. This question in one form or another has occupied the authors for a great many years. Leaving out of consideration the older authors, Bazin described cases in which he found it difficult to decide whether he was dealing with an eczema or a psoriasis, and says that a psoriasis may become eczematized or an eczema become psoriasiform. Duhring (*Cutan. Med.*, ii, p. 324) speaks of the occasional association of seborrhœa with psoriasis and regards these forms as seborrhœic psoriasis, and again (p. 328) among the complications of eczema mentions psoriasis and says that occasionally both diseases are so equally pronounced in their manifestations that the case may be viewed as being either the one disease or the other. In some cases, he says (p. 339), "The subjects are liable to attacks

of either disease, showing at one time eczema, at another psoriasis." * In the discussion following a paper on psoriasis by Greenough before this Association (*Jour. Cutan. and Gen. Urin. Dis.*, iii, p. 301) a number of the members present spoke of the difficulty of diagnosis between some forms of eczema and psoriasis. Duhring had several times made a diagnosis of seborrhœa in cases which afterward proved to be psoriasis. Hyde said "That itching was often, in his experience, one of the most distressing symptoms of psoriasis." Robinson said, "It was often impossible to make a diagnosis as between psoriasis and eczema." White attached but little importance to the localization of the eruption; in his experience the patches of psoriasis were often as abundant on the flexor as on the extensor surfaces. Fox said, "That in many cases with extensive eruption the knees and elbows were spared." Hardaway had seen eczema persist for months and finally terminate in psoriasis; he had seen eczema clear up and leave islands of psoriasis behind; in many cases the border line between the two diseases was very indistinct.

This interesting discussion took place in the year 1885; before the publication of Unna's work on seborrhœic eczema. To-day no writer on psoriasis or eczema fails to describe cases as transition forms, under the name of psoriasiform eczema and seborrhœic psoriasis. In France Besnier and Brocq have given much attention to these forms. Besnier describes psoriasiform eczema as lacking the obstinacy and the tendency to recur of typical psoriasis. Brocq has for many years been struggling with the question and is now convinced of the existence of a considerable group of dermatoses which hold a middle position between eczema and psoriasis. These dermatoses, he thinks, are probably parasitic and, in their fullest development, resemble typical psoriasis. He nevertheless maintains the independent existence of psoriasis, but on the other hand recognizes a psoriasiform eczema. To-day he is speaking of this group as the parakeratoses, and divides them into *parakeratose seborrhoïque* and *parakeratose psoriasiforme*.

Unna long ago cut the Gordian knot. I recall that at the time of my stay in Hamburg in 1889-90, when Unna's generalization of seborrhœic eczema in the vigor of its youth had swallowed up all forms of eczemas, we were already including the transitional forms in question under seborrhœic eczema and were in doubt only about the typical forms of psoriasis.

* H. G. PIFFARD, *Materia Medica and Therapeutics of the Skin*, 1881, p. 126.

As to Unna's seborrhœic eczema, which has been an apple of discord in the dermatological world these twenty years past, it may be said that while it has been accepted in its entirety by very few dermatologists it has been rejected in its entirety by the fewest; and it is generally recognized that there is a group of dermatoses ranging from pityriasis capitis to Duhring's seborrhœa corporis and including some types previously described as eczema which properly belong to one group. I think it unfortunate that Unna chose for this group the name of eczema seborrhœicum, for in my opinion this disease is not an eczema at all, and our concepts are so limited by our terminology that this unfortunate name has been a hindrance to the acceptance of a truth.

In the course of time Unna has come to include psoriasis frankly under the heading of seborrhœic eczema, and in Bloch's *Practice of Dermatology*, published last year under the ægis of the Hamburg dermatologist, psoriasis is treated merely in an appendix to the chapter on eczema as a special dry form of eczema seborrhœicum. "There is not a single symptom and no single peculiarity of psoriasis," the author says, "which does not show variations toward the eczema type." To you, gentlemen, whose opinions expressed nearly twenty-five years ago I have quoted above, this statement will appeal with peculiar force. Unna's arguments for the identity of psoriasis and seborrhœic eczema may be summed up as follows:

The typical scales of psoriasis are dry and silvery, that is, have a large amount of included air; but we constantly find scales in psoriasis that are not dry and white, but either yellow and fatty or serofibrinous and crusted. The typical psoriasis papule upon removal of the scales shows a dry, red surface with bleeding points. This symptom results from the extreme hypertrophy of the papillary body; when the hypertrophy is less marked this symptom is absent. Indeed, at times, under the apparently dry scales there is a moist serous surface. The typical psoriasis patch is sharply defined against the surrounding skin, but this is equally true of the circumscribed nummular eczemas.

Psoriasis affects the extensor surfaces while eczema has a predilection for the flexor surfaces. But in cases of universal psoriasis this does not hold, and in cases of eczema we often find patches on the extensor surfaces covered with dry scales which would do credit to the most pronounced psoriasis. We often see cases in which the patches on the knees and elbows are typically psoriatic, while on the chest, axillæ and groin they are typically eczematous.

Not infrequently cases of generalized eczema pass gradually into a psoriasis; cases of moist eczema give a history of previous attacks of psoriasis; cases of psoriasis in the adult give a history of crusted eczema in childhood, and cases of eczema and psoriasis occur among the members of the same family.

As to associated symptoms, psoriasis of the scalp, unlike eczema, is usually not followed by alopecia. This statement has its limitations. Many psoriatics are bald, and many cases of dry eczema of the scalp escape alopecia. The changes in the nails in eczema and psoriasis are in the majority of cases undistinguishable. Itching in psoriasis is generally absent, but by no means always; and on the other hand many forms of seborrhœic eczema do not itch at all.

Finally there is the practical identity of treatment of psoriasis and chronic dry eczemas, and the similarity in the histological structure.

You see, gentlemen, that in this summary there is hardly a statement which has not been made by one of you long ago or that is not found in every text-book. The whole question seems to me to be simply a matter of the point of view. You are struck and perhaps puzzled by the occurrence of features called psoriatic in cases of seborrhœic eczemas, and seborrhœic in psoriasis. The difficulty vanishes when you look upon seborrhœic eczema and psoriasis as merely phases of a single process. The trouble is that we have inherited certain labels which so fill our field of vision that we cannot see the facts behind them. Török, one of the ablest and most critical of Unna's pupils, does not accept Unna's seborrhœic eczema at all, merging it entirely into Duhring's seborrhœa corporis, and in a notable article (*Arch. f. Dermat. u. Syph.*, 1899, pp. 69-203) argues for the recognition of this seborrhœa corporis as a mild atypical form of psoriasis, which he looks upon as an independent dermatosis within which there are a great number of variations, from the "typical" psoriasis to the milder eczematized forms with atypical localization, from the obstinate and recurrent to the more readily curable.

Here again the difference is more apparent than real. Unna includes psoriasis under his seborrhœic eczema; Török includes seborrhœa under psoriasis.

Darier establishes a group of circumscribed erythemato-squamous dermatoses to include eczema seborrhœicum, the seborrhéides of Brocq and Audry and the dry, circumscribed eczemas, which he calls eczematides. Among the eczematides he described an *eczematide*

psoriasiforme between which and psoriasis there is no sharp line, and "we are often obliged to reserve our judgment." Psoriasis, however, he treats as an independent disease.

I think we are all agreed as to the facts. But most of us lack the courage of our convictions and are afraid to take the single step that will clear up all the difficulty. Psoriasis and seborrhœic eczema are identical processes with only non-essential differences.

If this view is correct we have made a considerable step forward in arriving at the ætiology of psoriasis. For we are practically all united in the opinion that seborrhœic eczema is an infectious microbic disease, though most of us are still awaiting a demonstration of the particular organism that produces it.

To sum up the conclusions reached in this paper, we may say:

(1) That rheumatism, gout, neurosis and heredity are not direct ætiological factors in the production of psoriasis, but in the present state of our knowledge it can neither be denied nor affirmed that they may have some bearing on the obscure conditions of the system which render it more or less susceptible to this especial infection.

(2) That psoriasis is one member of a group of parakeratoses to which seborrhœa corporis and, in part, eczema seborrhœicum, belong.

(3) That it is most probably due to an external microbic infectious agent.

THE QUESTION OF THE PARASITISM OF PSORIASIS *

BY JAY FRANK SCHAMBERG, M. D., Philadelphia.

IN discussing the subject of the parasitic nature of psoriasis, three propositions may be formulated for consideration:

(1) The disease might be the result of the circulation in the fluids of the body and deposition in the skin of a microparasite, analogous to what is observed in syphilis and variola.

(2) Psoriasis might be due to the implantation upon the skin of an exogenous parasite, as is observed in ringworm, favus and tinea versicolor.

(3) The disease might be due to one of the common facultative parasitic organisms ever present upon the skin, in individuals in whom a constitutional predisposition renders the soil favorable.

Let us consider these three propositions:

1. That psoriasis is a constitutional, infectious disease with the exciting organism circulating in the blood is a hypothesis which would be difficult to reconcile with the clinical history of the disease. The analogy between acute outbreaks of psoriasis and of leprosy and syphilis might at first thought suggest such a theory, but on further consideration it is evident that the points of difference in the behavior of psoriasis, as compared with these diseases, are more pronounced than the points of resemblance.

Psoriasis is not *per se* attended with any disorder of the general economy: there is a conspicuous absence of fever, even during acute eruptive outbreaks. There are no symptoms implicating any organ or tissue save the skin. Hebra, in commenting upon his psoriatic subjects (of whom the number far exceeded 1,000), says: "These have, without exception, been persons of strong constitution and firm fibre, who were well nourished, and whose bodily functions were in perfect order. In a word, they have been blooming, healthy individuals." This experience of Hebra is not quoted with the idea of representing psoriasis as essentially and exclusively a disease of the strong and healthy—as a "morbus fortium," as Thibierge expresses it. Common experience teaches that psoriasis

* Read before the 33d Annual Meeting of the American Dermatological Association, Philadelphia, June 3-5, 1909.

may occur in subjects who are anæmic and frail, or in those who are suffering from organic disease, but we have no knowledge that the psoriasis is dependent upon such deviations from health. Moreover, the majority of psoriasis patients are, as Hebra contends, healthy individuals. We are unacquainted in the human species with any constitutional infectious disease, either acute or chronic, that progresses without systemic disturbance and with complete preservation of the general health.

2. The second proposition would command general acquiescence if a parasite peculiar to psoriasis were found in the cutaneous lesions, as is the case in ringworm, favus and tinea versicolor. Repeated attempts have been made to cultivate an organism from psoriasis lesions. As early as 1856, Höring (*Med. Correspondenzbl. des Württ. Aerztl. Verein.*, 1856, p. 149) and Hafner, (*Ibid.*, p. 2541), reported cases of psoriasis conveyed from cattle to human beings; they sought for the parasite without result. From the description given, the affection observed is generally believed to have been "ringworm."

Wertheim in 1853 (*Abstr. Gaz. hebdom. de med.*, p. 449), examined the blood of psoriasis patients for micro-organisms, and failing to find any, studied the urine in which he discovered a fungus of the penicillium glaucum species, with which he carried out animal inoculations.

In 1879, Lang (*Vierteljahrsschr. f. Dermat. u. Syph.*, 1879, p. 257), described in psoriasis scales a hyphomycete consisting of spores and mycelium which he termed "epidermidophyton." Eklund, in 1883 (*Ann. de dermat. et de syph.*, 1883, No. 4), found a similar fungus which he designated "leporicolla repens."

Ries, of Strassburg, in 1888, in a splendid series of papers, disposed of these claims by proving that the so-called parasites were in reality artefacts produced by the action of the potassium hydrate solutions used in the examination of the scales.

In 1887, the question of the parasitism of psoriasis was discussed at the Italian Congress of Pavia. De Matei found a micrococcus which he regarded as the cause of psoriasis; inoculations of this organism upon animals produced, he alleged, psoriasis-like efflorescences. Maiocchi looked upon De Matei's findings as accidental.

In preparation for the writing of this paper, I endeavored to carry out a series of bacteriological investigations upon psoriasis in the Department of Hygiene of the University of Pennsylvania.

Thirty cultures were made from ten cases of psoriasis. The patches were vigorously rubbed with absorbent cotton saturated with alcohol; after the latter had evaporated, the scales were scraped off with a sterile instrument and the deeper ones deposited upon tubes of agar, blood serum and bouillon. Mixed blood, lymph and scales from patches were likewise inoculated upon these media.

The results obtained are summarized as follows:

Case 1 yielded the bacillus mesentericus.

Case 2 yielded on 3 tubes sterile cultures and on 1, the staphylococcus albus.

Case 3 yielded on 1 tube sterile culture and on 1, the staphylococcus albus.

Case 4 yielded on 1 tube bacillus mesentericus and on another, a sarcina, producing a creamy, yellowish growth.

Case 5 sterile.

Case 6 yielded a sarcina, producing a creamy, yellowish growth.

Case 7 yielded the staphylococcus albus.

Case 8 sterile (2 cultures).

Case 9 sterile (2 cultures).

Case 10 yielded the bacillus mesentericus.

The staphylococcus albus was found in three cases, the bacillus mesentericus in three cases, and a yellowish sarcina in two cases; in three cases all of the cultures were sterile, and in two cases some of the cultures were sterile.

Inasmuch as no organisms peculiar to psoriasis were found in any of the cases, the bacteriological study was discontinued.

It may be stated that up to the present time no parasite has been found in the lesions of psoriasis that has any serious pretensions to specificity.

3. The view that psoriasis is due to one of the widely distributed parasites commonly found upon the skin is purely within the domain of conjecture, and is as difficult of disproof as of proof.

If psoriasis is proven to be of parasitic origin, it will probably be found that the exciting parasite is peculiar to the disease. The lesions of psoriasis are so characteristically uniform in their appearance and mode of development, that we would expect a specific parasite to produce such a specific pathological lesion.

Crocker has advanced a rather unique view of the pathogeny of psoriasis. He says: "I can only somewhat dogmatically state that my view of the hypothesis that best fits all of the clinical facts is:

"1. That the disease is primarily due to a microparasite which is probably very widespread, but only grows in certain persons,

and that heredity is really tissue susceptibility for the growth of the organism.

"2. That while the parasite is probably first planted on the skin from without, the symmetry and often rapidly widespread distribution can only be accounted for on the theory that the parasite penetrates into the circulation and is thence distributed." (CROCKER, *Diseases of the Skin*, 3d Am. Ed. p. 368.)

The mere fact that attempts to discover a microparasite in the lesions of psoriasis have proven unsuccessful, by no means disposes of the question of the parasitism of the disease.

Let us consider the clinical arguments that can be invoked in favor of and against the parasitic nature of the disease under consideration.

1. The lesions of psoriasis begin as punctate efflorescences which enlarge by peripheral extension, and at times exhibit central healing. This manner of growth so closely resembles that of tinea circinata and of certain forms of syphilis (both affections in which the exciting organism proliferates in the diseased areas), that the analogy possesses a degree of suggestiveness. The force of any argument to be deduced therefrom is, however, greatly weakened by the observation that certain admittedly non-parasitic dermatoses, such as erythema multiforme, lichen planus, and lupus erythematosus, may exhibit similar clinical phenomena.

2. In tinea circinata and in certain syphilides the coalescence of neighboring lesions is commonly followed by a disappearance of the contiguous or overlapping borders of the patches. Thus a complete figure-of-eight contour resulting from the peripheral extension of adjacent annular patches is converted into an incomplete double-ring configuration. Three contiguous annular patches may be so modified as to produce a clover-leaf-shaped patch. The variety of figurations observable in this disease is determined by the number and topographic relation of the adjacent patches.

The cause of the disappearance of the borders of overlapping patches must be due to the creation of an unfavorable soil in areas previously the seat of the morbid process. To be more precise, it would appear that the parasite of ringworm and syphilis through the process of addition, abstration or alteration in the diseased integument, establishes a local immunity. The encroachment of one patch upon the domain of another is thereby prevented.

The same behaviour of patches is commonly seen in gyrate and

figurate psoriasis. As ringworm and syphilis are parasitic diseases, the clinical parallelism with psoriasis, argues to this extent, in favor of the parasitic nature of the last named affection.

Several pertinent queries, however, here intrude themselves. Is the unfavorable soil or the local immunity exclusively the result of the operation of a *causa viva*? Does the phenomenon described occur in any other dermatoses of non-parasitic origin? The solution of the second question would largely satisfy the first.

It must be admitted that in some cases of figurate erythema multiforme, much the same growth and configuration of lesions are observed. In these cases there would appear to be likewise an unfavorable soil created in the cutaneous tissue primarily affected. It is possible that a toxic substance of non-bacterial origin might create a local immunity similar to that produced by a toxin of parasitic origin. This clinical parallelism between psoriasis, tinea circinata, and syphilis, as an argument in favor of the parasitism of psoriasis, is weakened by the erythema multiforme analogy, but not necessarily nullified.

Prof. Eduard Lang, in an article on "A Judgment of Psoriasis Based on Its Clinical Characters" (*Arch. f. Dermat. u. Syph.*, 1878, p. 433), invoked the analogy between the involvement of the nails of psoriasis and in ringworm and favus, as contributory evidence of the parasitic nature of psoriasis. Kuznitzky (*Arch. f. Dermat. u. Syph.*, 1897, xxxviii, p. 405), attacks this argument as well as the entire parasitic theory. He says: "In the terminal stage of nail involvement, when the nail is thickened, lustreless, discolored, fissured and brittle, it is often difficult to differentiate between an onychopathia trichophytica, favosa or psoriatica, but the primary nail changes in psoriasis are quite characteristic." Hebra says: "In some cases of psoriasis there is seen in the beginning of the nail involvement, when the nail is still transparent, in the nail bed beneath the same, a punctiform psoriasis lesion similar to those seen elsewhere, from which it may be observed that the same process which causes the psoriasis efflorescences in other areas, acts likewise here."

Schütz, in describing psoriasis of the nails, says: "On retraction of the nail fold one sees on the posterior third of the lunula, a number of vivid red puncta which fade upon pressure. I regard the red puncta in the region of the lunula in psoriasis as something characteristic, as according to my knowledge they do not appear in any other dermatoses." Heller (*Die Krankheiten der*

Nägel, Berlin, 1900) says the red puncta represent hyperæmic papillæ. In the area of these hyperæmic papillæ, the nail substance undergoes softening. The punctate soft foci fall out and leave pin-head-sized depressions in the nail plate. With the forward growth of the nail, the depressions are seen on the anterior part also. Heller speaks of this condition as psoriasis punctata unguium.

Kuznitzky regards the character of the nail involvement in psoriasis as evidence against the parasitic theory. He remarks: "How can a parasite from outside gain entrance beneath the nail and into the matrix? But one route is conceivable: the blood paths."

INSTANCES OF APPARENT COMMUNICATION OF PSORIASIS

Dermatologists have always felt warranted in asserting that psoriasis is not a contagious disorder. It is our common experience that psoriatics may live in intimate contact with members of their family throughout a lifetime without transmitting the disease to others. A number of apparent instances of contagion have, however, been recorded.

Poor (*Vrtljschr. f. prakt. Heilkunde*, 1878, p. 103) collected statistics concerning the hereditary influence of psoriasis. He incidentally noted among his cases, six instances in which husband and wife both suffered from psoriasis.

At the Copenhagen Congress of 1884, Unna recited the case of three children in a family free of psoriasis, who one after the other developed psoriasis a short time after the advent into the household of a nurse-maid suffering from this disease.

Nielsen (*Monatsh. f. prakt. Dermat.*, 1892, xv, p. 375), commenting on Unna's experience, remarks: "Among my private patients, there occurred a quite similar case, except that there was here but one child." Nielsen also refers to a mother developing psoriasis for the first time a long period after her daughter had been attacked.

Hammer (*Mittheil. aus. d. med. Klin. zu Würzburg*, 1886, ii, pp. 404-5), reports the case of a father and daughter who almost simultaneously developed psoriasis, the mother and her sister having suffered from the disease for a long time.

McCall Anderson, commenting on the influence of heredity, mentions a family under his care in which the father, two daughters, and a son were all the subjects of psoriasis. He also writes: "I

am at present attending a lady who has had psoriasis for a number of years, whose husband became affected with the same disease about six months ago." (McCALL ANDERSON, *Psoriasis and Lepra*, London, 1865, pages 12 and 37).

Aubert (Discussion following the paper of Destot and Augagneur, loc. cit.), mentions two instances in which psoriasis appeared in two women whose husbands suffered from the disease.

Beissel (*Aix la Chapelles as a Health Resort*, London, 1892, page 121), reports the case of two brothers who developed psoriasis simultaneously while on a journey; he also mentions the case of two cousins who had occupied the same bed, developing psoriasis; the grandfather of one of them was a psoriatic.

Meneau ("A Case of Apparent Contagion of Psoriasis," *Jour. de méd. de Bordeaux*, 1895, p. 578), communicated to the Société de médecine et de chirurgie de Bordeaux, the history of a case of psoriasis suggesting contagion to him. An eight-year-old girl of a psoriasis free family presented herself with this disease. One year later she was accompanied by a younger sister, who had developed a distinct psoriasis limited to the scalp. The mother inquired whether the disease could have been transmitted by the use of a common comb.

Cantrell (*Med. Rec.*, New York, 1896, xlix, p. 627), records the case of a twelve-year-old boy suffering from psoriasis, whose sister and mother developed the disease for the first time, four years later. There was no history of psoriasis in the family.

He also reports the case of a young man, eighteen years old, whose mother, a woman of fifty, developed evidence of the disease for the first time a year after the young man had presented himself for treatment. There was in this instance likewise no history of psoriasis in the family.

Within a recent period, an instance of apparent contagion has come under my observation. Mrs. W., married, aged forty, a private patient of average intelligence, had had psoriasis for twenty-six years. Her mother, Mrs. B., aged seventy-one, resides in the same household. The mother has within recent years slept with her daughter from time to time and has nursed her during attacks of rheumatism. One year ago the mother developed a scaly patch on the face; this was followed by an eruption on the elbows and knees. At my request the mother accompanied her daughter to my office and I had an opportunity of examining her. She presented undoubted patches of psoriasis below both knees and on the ears.

Despite close interrogation both the mother and daughter averred that this was the first eruption on the skin the former had ever had. There was no history of psoriasis in the mother's family.

A perusal of the above cases cannot fail but impress one. To be sure, psoriasis is an extremely common disease and the reported instances of apparent contagion number scarcely a score. The list, however, could doubtless be extended by greater diligence in securing histories of psoriasis patients with a view to studying the question of communicability. This series of reported instances of apparent transmission of psoriasis must be properly weighed and added to our store of knowledge of the disease.

Multiple cases of the same disease in a family do not necessarily mean contagion. Only recently Fritz Veiel (*Arch. f. Dermat. u. Syph.*, 1908, xciii, p. 383), has reported the case of a family in which the father, daughter, and son suffered from lichen planus within the course of a few years. He gives other records in the literature. Brocq, Lustgarten, Morris and Schütz have observed lichen planus in mother and child; Ormerod in mother, son and daughter; Lustgarten in mother and two daughters. Cases of lichen planus in brothers or in brothers and sisters have been reported by Knobloch, Hamacher, Lederman, Reicke, Bettman, Jadassohn, Heidingsfeld, Geber and Hallopeau. Jadassohn saw lichen planus in three brothers. Brocq twice observed lichen planus in husband and wife, and Morel-Lavallée noted this once. In many of these instances the attacks, however, were not coexistent.

On the other hand, rarity of apparent transmission must not be urged with too much force as an argument against parasitism. We all know how rare it is to observe tinea versicolor communicated from an affected man or woman to his or her conjugal mate. Indeed, if tinea versicolor had not been demonstrated to be caused by a fungus we would doubtless not be disposed, from clinical considerations, to regard it as a parasitic disease.

INOCULATION EXPERIMENTS. In 1885, Lassar (*Berl., klin. Wchnschr.*, 1885, No. 47, p. 771), demonstrated before the Berliner medicinischer Gesellschaft, two rabbits that he had inoculated with psoriasis. One was inoculated with the scales, lymph and blood from a psoriatic patient, and the second rabbit from the resulting lesion in the first. In both animals there was loss of hair at the inoculated site, and in the first animal redness, thickening of the skin and a heaping up of scales. The removal of the coarse scales led to capillary hæmorrhage. Lassar stated, however, that

further research along these lines was necessary before he would draw any binding conclusions as to the transmissibility of psoriasis. Behrend, who was present at the demonstration, said that the lesions did not conform to psoriasis in the human subject; they resembled more herpes tonsurans.

Ducrey (*Sulla Voluta Contagiosita della Psoriasi, Gior. ital. d. mal. ven.*, 1887, No. 6, abstr. *Arch. f. Dermat. u. Syph.*, 1888, p. 425), tried numerous experiments on man and upon rabbits, guinea pigs and dogs to test the transmissibility of psoriasis. His experiments consisted of (1) vigorous inunction of a mixture of psoriasis scales with the lymph and blood that exuded, into normal, abraded and incised skin. (2) Application of the same to a blistered area. (3) Hypodermatic, rectal, intraperitoneal, and intratracheal injection of psoriatic diseased products. All of the results were negative. Ducrey concluded that (1) psoriasis is not transmissible either to man or lower animals; (2) the various forms of parasites found by different persons in psoriasis lesions are in all probability not the cause of psoriasis.

De Amicis and Campana also inoculated rabbits and guinea pigs with entirely negative results.

INOCULATIONS ON MAN. In addition to the negative inoculations upon man carried out by Ducrey, Alibert, De Amicis, Hammer and Block have attempted the same experiments without results. Wützendorff's effort to inoculate himself was unsuccessful. With scales and lymph from a well-pronounced case of psoriasis in a young man, I inoculated an abraded spot upon the flexor surface of my left forearm. The inoculation was entirely negative.

A remarkable instance of the successful inoculation of psoriasis is reported by Destot and Augagneur ("Inoculabilité du psoriasis," *Mem. et compt. rend. de la Soc. des scienc. med. de Lyon*, 1889, xxix, part 2: *Compt. rend.*, 1890, pp. 131, 215; and *Province médicale*, June 8, 1889): (Referred to in Brocq's letter, *Jour. Cutan. Dis.*, 1889, vii, p. 473). Destot, himself, was the subject of the experiment. The facts as recited by Hallopeau (*Annal. de dermat. et de syph.*, 1901, 4th series, ii, p. 337), are as follows:

The subject, twenty-five years of age, came of a family entirely free of any cutaneous affection. On the ninth of May, 1889, Destot had a scarification performed by a colleague on his right arm at the insertion of the deltoid muscle, and a young and complete plaque of psoriasis inserted into the same, the plaque being taken from an infant, the subject of a vaccinal psoriasis. Epidermic scales, psor-

iatric pellicle, lymph and blood were all included in the inoculated material. At the end of forty-eight hours after the inoculation, papules of an undefined character appeared on the left elbow. On the following day several similar papules developed on the right elbow. On the sixteenth of May, these papules were covered by furfuraceous scales. During the succeeding days, the scaly plaques took on more and more the character of psoriasis plaques. On the twenty-fifth of May, they all were distinctly characteristic. On May 29, Destot presented himself before the Society of Medical Sciences of Lyons and the diagnosis of psoriasis was confirmed. The site of the inoculation healed without the formation of any lesion. In the course of two or three months a spontaneous cure took place, but on four different occasions within the succeeding two years, new eruptions of a similar character appeared. Hallopeau writing in 1901 stated that for the last ten years the disease appeared to be extinguished. Hallopeau regards this experimental inoculation as incontestably proving the parasitic nature of psoriasis. Certain other French dermatologists, especially Brocq and Horand, decline to attribute to it such weight.

A curious feature of this remarkable experiment was the development within forty-eight hours of lesions elsewhere than at the site of inoculation, and their failure to appear at the latter site. If we admit without question that the case is one of true inoculated psoriasis, then it is evident that the psoriasis lesions were produced through an infection of the blood. Very few dermatologists at the present time would be willing to subscribe to such an hypothesis. Even Neisser, who is an advocate of the parasitic theory, spoke at the Copenhagen Congress against the possibility of the parasite of psoriasis being carried through the blood channels.

While, therefore, the experiment of Destot is, by reason of the apparent relation of cause and effect, remarkably suggestive, it must be confirmed before its definite evidential value is acknowledged. It must be remembered that all of the other human inoculations tried have proven negative; moreover, the acceptance of the genuineness of this inoculation would necessitate a revolutionary change not only in our comprehension of the nature of psoriasis, but also in the mode of production of its lesions.

The fallacy of positive deductions from apparently true but inconclusive experiments, is well illustrated in the following reported cases:

Thomas F. Wood (*Jour. Cutan. and Ven. Dis.*, March, 1883,

p. 161), in 1883 reported the case of two girls, eight and eleven years old respectively, who although never the subjects of psoriasis, developed the disease after vaccination with the same bovine lymph. The writer states: "With the subsidence of the vaccine disease each of the girls had an eruption of psoriasis which has now lasted a year." A further feature of this report completely changes the tenor of the theoretical deductions which might have been drawn from this interesting experience. A brother of the two girls, a young man, twenty-one years of age, who had had psoriasis and who presented many patches of the disease, was vaccinated with bovine virus. The psoriasis patches disappeared coincidently with the termination of the revaccination. It would appear here that the systemic commotion caused by vaccination determined the outbreak of psoriasis in two girls predisposed to the disease, and that the same systemic disturbance in the brother effected the disappearance of an existing psoriasis.

ATTEMPTED AUTOINOCULATIONS UPON PSORIASIS PATIENTS. If psoriasis is a parasitic disease, the inability to inoculate persons with it may be explained on the basis of absence of susceptibility or predisposition. Recognizing this obstacle, the effort was made to surmount the same by securing subjects possessing a susceptible soil. I therefore endeavored to inoculate, or rather autoinoculate, patients already suffering from psoriasis. In the earliest cases I simply rubbed scales, lymph and blood from a psoriasis patch into an abraded area free of the disease. The abrasions were linear, about two centimeters in length and were made with a scalpel or a curette. In the later cases, the same course was pursued, but a control abrasion was also made. A site was usually selected upon an area of the opposite side corresponding with the location of the primary inoculation. The skin was cleansed with alcohol, abraded in the same manner as the inoculated site, and then covered with a thick layer of ichthyol-collodion.

Case 1. January 26, 1909, M. G., female, aged twenty-four; duration of disease eight years; has never been free of eruption. New lesions appearing on face and arms when patient came under observation. Inoculated with scales and blood on flexor surface of right forearm; on the left biceps small control abrasion.

February 17, 1909, small patch of psoriasis appears to be developing both at the site of the inoculation and at the site of the control abrasion. No other new patches present.

March 31, 1909, both the inoculation and the control abrasion are *positive*. On this date a new inoculation was made on the right forearm, and a control abrasion on the left biceps covered with ichthyol-collodion.

Inoculation *positive*; control *negative*.

Case 2. February 9, 1909, C. P., male, aged ten; attacks of psoriasis each year since age of three; has only one patch on right forearm. Inoculated from this patch on area near elbow of right arm.

Inoculation proved *negative*.

Case 3. January 25, 1909, F. L., male, aged ten; circumscribed patches of psoriasis below knees; no other lesions. Right side of back excoriated and scales softened in sterile bouillon rubbed in. Small control abrasion made on left side of back.

Both sites remained *negative*.

Case 4. February 12, 1909, Miss M., aged twenty; duration of psoriasis fifteen years; the eruption chiefly on arms and legs. Palmar surface of left arm inoculated with blood and scales; right arm abraded in same region.

February 26, 1909, both the inoculation and the control abrasion have proven *negative*.

Case 5. January 23, 1909, E. S., male, aged twenty-three; duration of disease since childhood. Eruption on arms, legs, scalp, and to a certain extent on body. Lesions have been stationary for some time. Right side of back inoculated with scales and blood; on left side a control abrasion made.

The result in both cases was *negative*. An attempt was made on two successive occasions with similar *negative* results.

Case 6. February 29, 1909, R. R., female, aged twenty-four; eruption particularly upon scalp, some pea-sized patches on elbow. Inoculation performed on left arm over ulna.

March 27, 1909, inoculation has remained *negative*.

Case 7. March 3, 1909, M. M., female, aged seventeen; extensive psoriasis in large patches on trunk, face, scalp, and extremities. No recent lesions present. Inoculation performed upon right arm; this remained *negative*.

March 31, 1909, another inoculation tried with similar *negative* result.

Case 8. February 9, 1909, R. F., female, aged twelve; duration of disease three years; extensive psoriasis. Inoculation over right ulna. This has remained *negative*.

Case 9. February 9, 1909, C. M., female, aged seven; guttate psoriasis involving the trunk; new lesions have appeared recently. Inoculated on upper part of right buttock. Inoculation *negative*.

March 3, 1909, inoculation on anterior surface of right arm.

March 16, 1909, the latter inoculation has proven *positive*, a patch of psoriasis 1 c. m. in diameter developing at this spot.

March 27, 1909, linear control abrasion made on left arm covered by ichthyol-collodion.

April 10, 1909, eruption on body has almost disappeared. The lesion at the site of inoculation on right arm is still present. The control abrasion on left arm appears to be psoriatic.

April 17, 1909, control abrasion on left arm consisting of a linear patch 2 c. m. long is distinctly *positive*.

Case 10. March 4, 1909, I. S., male, aged thirty-one; duration of disease five years. Many dime-sized patches on arms; great itching. Inoculation on palmar surface of left forearm.

March 11, 1909, crusts produced by abrasion present; lesions thus far *negative*.

April 19, 1909, inoculation has proven *negative*.

Case 11. March 19, 1909, A. T., male, aged sixty-six; duration of disease twenty years. Extensive eruption over greater part of body. Lesions have

appeared only within the past two to three weeks. On the back are well marked linear lesions following the lines of scratch marks. The eruption is very itchy. Inoculation performed on left scapula, control abrasion on right. The control abrasion covered with ichthyol-collodion. The inoculated area appears to be becoming psoriatic. The control abrasion is apparently negative. Another control abrasion made in the neighborhood of the first one.

March 27, 1909, the linear inoculation on left shoulder is now undoubtedly *positive*. Photograph taken to-day. The two control abrasions on the left shoulder are negative.

April 5, 1909, the psoriasis is now much improved; the positive inoculation patch is disappearing with the other patches on the upper part of the body. The control abrasion has remained *negative*.

The patient is taking internally sodium salicylate, ten grains three times a day. New inoculation and new control abrasions were made to-day.

April 15, 1909, both the inoculation and the control abrasion have completely failed to take.

April 26, 1909, inoculation *negative*.

May 14, 1909, eruption has entirely disappeared from the upper half of the body, including the arms, but is still marked on the sacrum, hips and legs.

Case 12. March 24, 1909, J. A., male; duration of disease, one and one-half years. Inoculation on right scapula, control abrasion on left scapula covered with ichthyol-collodion.

March 29, 1909, both lesions have remained *negative*.

Case 13. A. C., male, aged fifty-one; duration of disease, thirteen years. Large circumscribed patches. Inoculations tried with *negative* results.

Case 14. Mrs. F. A., aged nineteen; duration of disease, four months; new lesions appearing. Eruption present on arms, body, scalp and legs.

April 8, 1909, inoculation on left shoulder; control abrasion on right, covered with ichthyol-collodion.

April 13, 1909, no evidence as yet of inoculation or control taking.

April 27, 1909, inoculation site suspicious of eruption; control to a less extent so. Inoculation and control repeated; both *negative*.

Case 15. April 17, 1909, M. B., female, aged thirteen; duration of disease three years; duration of attack five months. Many new lesions appearing, one or two following lines of scratch marks. Inoculation on right shoulder; control abrasion on left, covered with ichthyol-collodion.

April 20, 1909, inoculation and control *negative*. New inoculation and control made, both *negative*.

Case 16. R. U., male, aged forty-five; isolated patches on extremities for many years. Patient has a well-pronounced acne necrotica of face. Inoculation on left arm near elbow. *Negative*.

Case 17. April 6, 1909, A. S., male, aged forty-six; chronic psoriasis, limited to leg; a few lesions about one month old. Inoculation on left arm. *Negative*.

Case 18. March 16, 1909, Mrs. J. W., aged forty; duration of disease twenty-four years; lesions appearing occasionally. Inoculation made upon arm. *Negative*.

Case 19. April 24, 1909, M. T., female, aged five, duration one year. Right arm inoculated; left arm control abrasion. *Negative*.

Case 20. April 25, 1909, A. W., female, aged twenty-two; eruption limited almost to arms; no recent outbreaks. Inoculation on left arm; control on right, covered with collodion.

May 2, 1909, apparently negative on both sides.

May 20, 1909, inoculation and control *negative*.

Case 21. April 27, 1909, Miss B., aged eighteen; duration four years. Inocu-

lation made on right shoulder; control abrasion made on left shoulder, covered with ichthyol-collodion. Eruption chiefly on back; some new lesions appearing on arms.

May 3, 1909, *negative*.

Case 22. May 14, 1909, Mrs. M., aged twenty-four; duration of disease one and one-half years. Eruption on elbows, knees and forearms; not spreading. Inoculation on left arm above elbow; control on right. *Negative*.

Case 23. S. G., male, aged forty-eight; duration of disease fifteen years. Eruption on face and elbows.

May 5, 1909, inoculation on right arm; control on left. *Negative*.

During the period of this experimentation twenty-three patients with psoriasis, in public and private practice, came under my care, and were subjected to the procedure just outlined. Some of the patients had repeated abrasions made upon them. It is seen from the cases reported that of attempted inoculations in twenty-three psoriasis patients, success was attained in only three instances. (Case 1, Case 9, and Case 11). These three patients exhibited more evolutionary activity of the eruption than did the other subjects. In nearly all of the latter, the eruption was circumscribed and stationary or there were but a few new lesions present.

As to the positive cases, Case 1 was developing new lesions on the arms and face when the inoculation was performed. Case 9 had a guttate psoriasis of comparatively recent date. Case 11 is the patient shown in the accompanying photographs. When first seen by me he had an acute widespread psoriasis with numerous linear lesions resulting from scratching. I anticipated that he would prove a favorable subject for the production of factitious lesions. The artificially produced psoriasis streak, seen in photograph No. 3, was characteristically developed within a week after the inoculation was performed. Sixteen days after the first inoculation was tried, and at a time when the general eruption upon the upper part of the body was undergoing rapid improvement, a second inoculation and control abrasion were tried with completely negative results in both. This was followed by a third trial with similar negative result. It is evident that in this patient conditions which were favorable to the development of factitious psoriasis lesions at one period, became unfavorable about a fortnight later.

From a consideration of the above results, it would appear that success in the artificial production of psoriasis lesions is largely determined by the degree of eruptive activity at the time of the experiment. *When there is a marked tendency to the development of new efflorescences it would seem that artificial lesions may be brought*

into existence; per contra, when the eruption is circumscribed and stationary and more particularly when the lesions are undergoing involution, it appears to be impossible to induce new lesions by artificial means.

In Case 11 a psoriasis lesion was produced upon the inoculated area, whereas, upon the control abrasion covered with ichthyol-colloidion no psoriasis lesions appeared. If such a difference in the inoculated area and in the control abrasion could be uniformly observed in the cases reacting positively, we would be warranted in drawing conclusions which would shed light upon the question of parasitism. Unfortunately, this has not been the case. In Case 9 a psoriasis lesion developed both at the site of the inoculation and subsequently at the site of the control abrasion. Undue importance must, therefore, not be attached to the observation in Case 11, for it is possible that the application of an impermeable antiseptic dressing over the abrasion may have rendered the resulting pathological changes in the skin different from the inoculated wound which was open and exposed to friction of clothing, etc. A further study along these lines is necessary before entirely satisfactory deductions can be made. The problem is rendered rather more difficult by reason of the small percentage of cases in which psoriatic lesions may be factitiously produced.

Koebner was one of the first dermatologists to call attention to the development of psoriatic lesions at the sites of various accidental cutaneous traumatisms. As a result of his observations, he formulated the theory that psoriasis represented a peculiar reaction of the skin to the influence of internal or local irritants either mechanical, chemical or thermal. He believed that this disposition of the skin was chiefly congenital or hereditary, although sometimes it was acquired.

Koebner (*Vrtljschr. f. Dermat. u Syph.*, 1876, p. 560), reported a case in which five or six years after the appearance of an isolated psoriasis plaque, outbreaks of psoriasis occurred over the exact areas of various traumatisms, such as excoriations from riding, suppuration of a lymph-adenitis, horse bite, and tattooing. Later there was a general dissemination of the psoriasis. Other writers have noticed this tendency of psoriasis to develop at the sites of traumatic insults to the skin.

Simon (*Localization der Hautkrankheiten*, Berlin, 1873, page 126), relates the case of a psoriasis streak following the line of a needle wound on the arm of a patient. He also observed a burn of

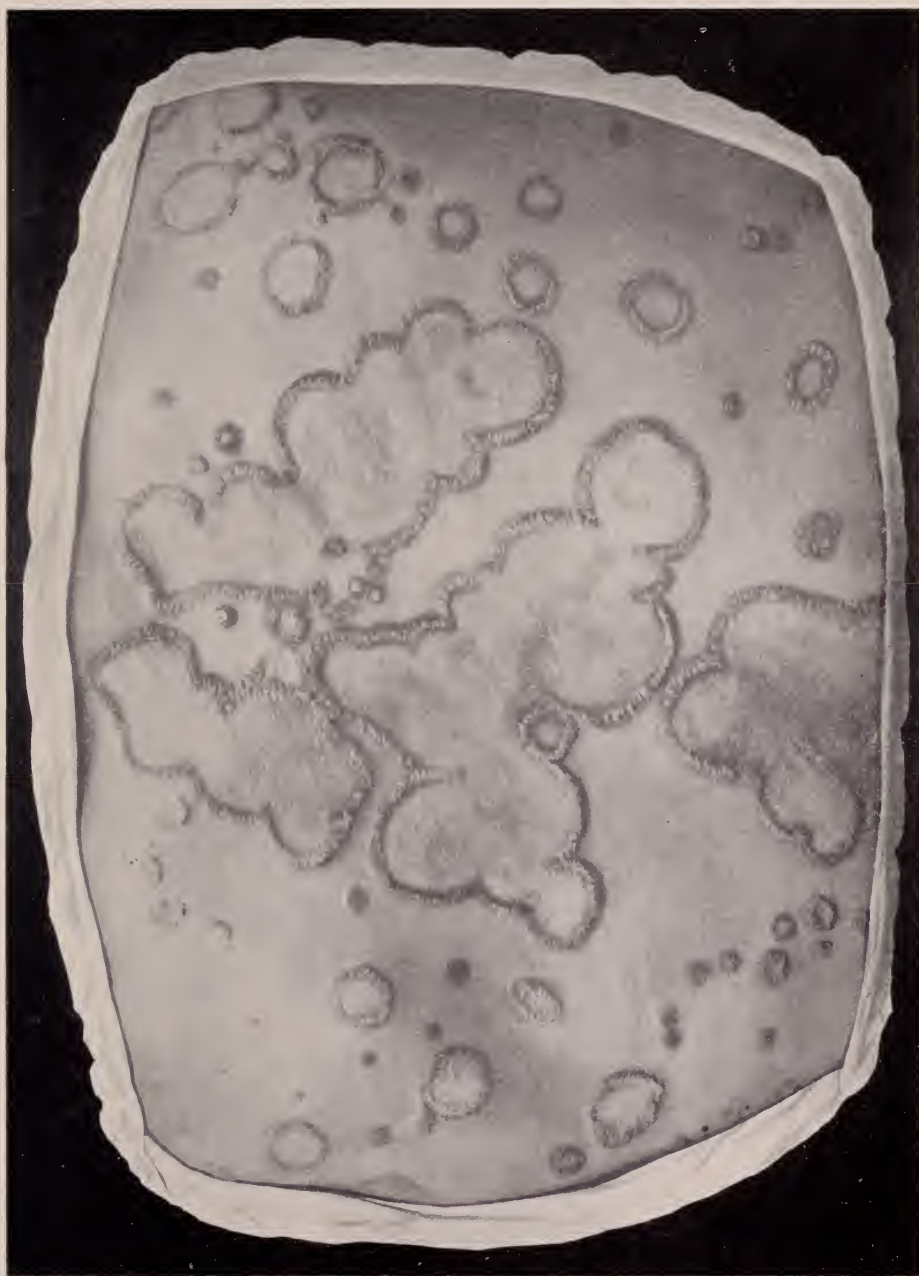


FIG. 1.

(Reproduced from "Pictorial Atlas of Skin Diseases and Syphilitic Affections," Rebman Co., N. Y.)



FIG. 3.

Linear lesion of psoriasis produced by scratching.



FIG. 2.

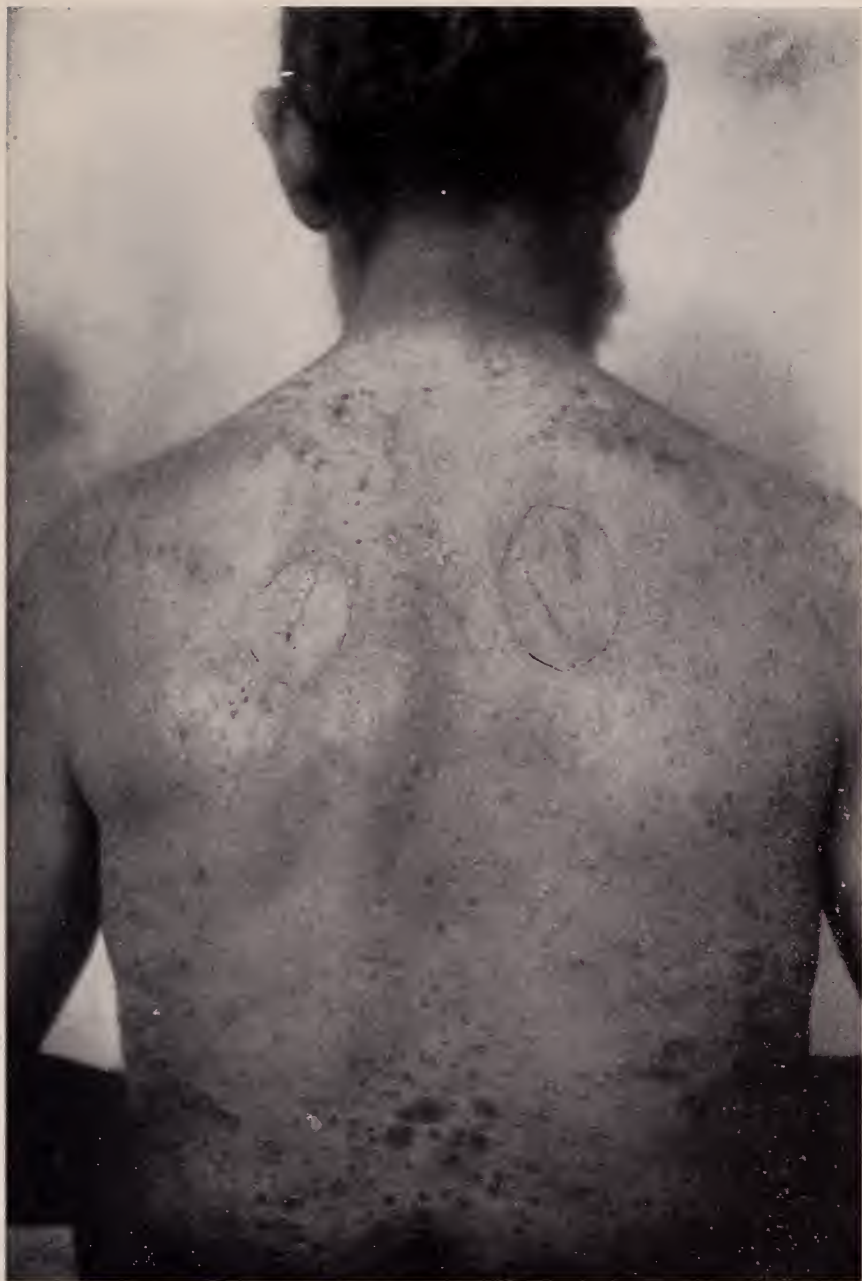


FIG. 4.

Linear lesion of factitious psoriasis on left shoulder blade, produced by abrasion of skin with a curette and the inoculation of the area with scales, lymph and blood from a psoriatic patch. On the right shoulder blade a control abrasion (not inoculated) was covered with ichthyol-collodion. No psoriasis lesion developed at the latter site.

the elbow the size of the palm of the hand, to be followed by an extensive psoriasis plaque.

Neumann in the fourth edition of his book on skin diseases relates that the application of fly blisters, sinapisms, scratching in cases of pediculosis, etc., have caused the development of psoriasis lesions over the areas irritated.

Wützendorff refers to a series of cases in which psoriasis lesions followed various injuries to the skin. In the first patient, an abrasion made with a dull pen-knife was followed in three weeks by a psoriasis plaque upon the abraded area. In another patient, he cauterized the skin with a twenty per cent. solution of caustic potash, after which a psoriasis efflorescence developed. A seven-year-old girl with a psoriasis of six months' duration was vaccinated, four incisions on the left arm being made. Fourteen days later, these had developed into linear psoriasis patches. The fourth patient, who had never suffered with psoriasis, had a severe sweat following an intense angina. In two weeks he showed a pronounced psoriasis punctata confined exclusively to the trunk. The fifth case was of particular interest. A thirty-year-old man, who had never had any skin disease, fell to the ground in November, 1875. He injured a knee, to which he made repeated applications of tincture of arnica, followed by tincture of iodine. This led to an exfoliation of the skin. The beginning of January, he showed, exactly over the area painted, a psoriasis plaque, the appearance of which was followed by a general eruption of psoriasis, first on the arm and then over the entire body.

That the production of an artificial dermatitis from the local use of drugs may lead to a renewed outbreak of psoriasis in persons suffering from the disease is evident from the following case under my observation: A. C., age fifty-seven, has had psoriasis for thirteen years. The patient has a low grade nephritis and occasionally sugar is found in the urine. On three different occasions within the past three years the patient has developed an erythematous dermatitis following the use of a chrysarobin ointment, a chrysarobin traumaticin, and a thirty-three per cent. mercury cocoa butter, respectively. The dermatitis in each case was converted in many areas into psoriatic patches, and was followed by the appearance of psoriasis papules in regions not the seat of the original dermatitis.

The results in the series of attempted inoculations previously set forth, it appears to me, argue against the truth of Koebner's

hypothesis. In over eighty-six per cent. of the patients, it was impossible to produce factitious psoriatic lesions, even after several trials in some patients. During the acute developmental stage of psoriasis, traumatism to the skin will commonly determine the production of lesions at the site of the traumatic insult.

What bearing have these observations upon the question of the parasitism of psoriasis? It might be argued that the failure to autoinoculate psoriasis in the vast majority of subjects, operates against the assumption that psoriasis is a local parasitic disease due to an exogenous organism. It might furthermore be argued that if the lesions of psoriasis are due to the implantation of a parasite upon the skin of a susceptible individual, inoculation with lymph, blood and scales from a diseased patch upon the healthy skin in the same patient might be reasonably expected to reproduce psoriasis lesions. Our lack of knowledge, however, concerning possible conditions of immunity in this connection, makes it unwarranted to deduce any positive conclusions of the character indicated.

The inability to autoinoculate psoriasis patients would not at all affect the hypothesis that psoriasis is a constitutional, infectious disease. This theory, however, has been previously discussed. From what has been stated, it is obvious that no definite conclusion as to the parasitism of psoriasis is warranted. The mode of growth and configuration of the patches, the occasional instances of apparent communication of the disease, and the Destot inoculation are arguments in favor of parasitism which cannot be decisively brushed aside. On the other hand, the general behavior of the disease, the common experience of observers as to absence of contagion and the almost uniform failure of inoculation experiments constitute strong evidence against parasitism.

Wisdom should prompt us, in the light of our present knowledge, or, more accurately speaking, in the dimness of our inadequate knowledge, to commit ourselves neither to positive affirmation nor to uncompromising negation.

DISCUSSION.

DR. WILLIAM A. PUSEY said the Association should be congratulated on these two papers. First there was the excellent critical review of the subject by Dr. Pollitzer, while that of Dr. Schamberg, dealing with the parasitism of the disease, would excite intense interest on the subject.

DR. JAMES C. WHITE said that in the course of his work, for

fifty years or longer, in the field of dermatology, he had heard many papers and listened to many discussions, both here and abroad, on the subject of psoriasis, and he had concluded, before these two highly interesting papers were read, that we were in the same position of ignorance in regard to the real nature of psoriasis to-day as we were half a century ago. The merit of these two papers lay in the fact that they did not revive old notions and exploded theories regarding the disease, and that they contained, in a succinct way, all that we knew definitely about it.

We knew, from our experience with psoriasis, that it could be called a family disease, or, to a certain extent, a hereditary disease. He had known seven children in one family to be affected with psoriasis. We knew that it succeeded quite a number of other cutaneous diseases, but that did not necessarily imply any ætiological relationship between the two.

Dr. White said that when he had mentioned these two factors as having some direct influence on the production of psoriasis, he thought he had told the whole story, so far as we had any direct knowledge of the nature of this disease.

DR. LOUIS A. DUHRING said that Dr. Pollitzer had brought this subject before the Association in a complete and concise manner, and that he was inclined to agree with much that had been said. The subject was really a broad one, and presented itself in so many different aspects that it was somewhat difficult to discuss. Unusual forms of psoriasis were occasionally met with, and this had not always been sufficiently well differentiated from other similar forms of squamous inflammation, such as seborrhœa, squamous eczema and chronic dermatitis exfoliativa. This fact had occasioned more or less confusion. Inattention to definitions and nomenclature was one of the weak points of dermatology. The definitions of some inflammatory skin affections were not sufficiently plain and clear. This was illustrated by several of Dr. Pollitzer's remarks on psoriasis in connection with eczema and other diseases. If psoriasis and the other allied diseases were more accurately defined, these indefinite questions would not arise. Many definitions were distinctly faulty, and this was nowhere more apparent than in connection with psoriasis, seborrhœa and eczema. Should we define a disease merely as concerns local manifestations or should there also be taken into consideration all factors and causes? Such questions were worthy of consideration and decision. Those were the points upon which observers were far from being agreed. Referring to Dr. Schamberg's paper, Dr. Duhring said it seemed to him that the matter of the possible parasitology and inoculability of psoriasis had been pretty fully investigated years ago by some of the Vienna school. As to the general or definite cause of this disease of the skin not a great deal could be

said, but up to the present time we surely had no convincing proof of its being parasitic.

In considering the treatment of psoriasis, the speaker said that Dr. Pollitzer had referred to the beneficial effects of a change of climate. A striking example of this came under Dr. Duhring's observation about thirty years ago in the person of a prominent elderly physician who had had a most severe form of inveterate psoriasis for many years, which was indeed so aggravated in development that it had confined him helplessly to bed for a long time. He had been treated by a number of physicians in Philadelphia and elsewhere without resulting benefit, and he conceived the idea that he would like to go abroad to Frankfurt and consult Dr. Passavant, who about that time was attracting the attention of the profession everywhere on account of his views regarding diet in this disease. He was carried in a bed on board the steamer, and singular to record, on the second or third day at sea he began to notice that he was positively improving. The voyage lasted about two weeks, and by the time it ended the psoriasis had largely disappeared, the partial recovery being due entirely to the favorable action of the sea voyage, as he had not taken any internal nor other treatment, nor special diet at sea, nor for some time prior to embarking.

DR. L. DUNCAN BULKLEY said he was very glad to have heard the papers of Drs. Pollitzer and Schamberg, and they tended to make him still more positive of his position on the subject for the past twenty years. All were ready to acknowledge that there were points in the ætiology of psoriasis about which very little was known. The speaker said he did not claim that it was necessarily the meat that produced it. He asserted that it was the result of the faulty metabolism which meat could in some way incite. He had long held that the particular lesions were microbic, acting on a favorable soil. There was no question but that there was something on the skin which produced these lesions on a favorable soil. He had had some patients under his care for twenty or thirty years in whom recurrent attacks of psoriasis were clearly traceable to errors in diet. In others they were apparently produced by a nervous shock, which, in turn, produced metabolic errors.

Dr. Bulkley emphasized the importance of careful urinalyses in these cases, taking the 24-hour specimen, and including an examination for indican. Such analysis frequently showed evidences of a disturbed metabolism, which would be aggravated by a meat diet. In ordering a meat-free diet, he insisted on making the rule absolute, and in addition to the meat, he usually included coffee.

In psoriasis, the speaker said, auto-inoculation was undoubtedly possible, and examples of it were not uncommon. He could recall many instances where lesions developed on scratches, but he firmly believed

that a disturbed metabolism was the chief factor in the production of psoriasis. Therein could be found an explanation of the fact that such attacks often developed during pregnancy or as the result of a nervous shock.

DR. JAMES NEVINS HYDE said that the papers of Drs. Pollitzer and Schamberg reminded him of an old-fashioned spring housecleaning. They had removed a lot of rubbish from the scientific path and in doing so they had performed a great service. At a meeting of the British Medical Association in Toronto two or three years ago, a paper had been read by the speaker upon the cause of psoriasis, and the discussion it evoked embraced all the old theories of the ætiology of the disease, including those enumerated in nearly a score of pages by Gaskoin in the last century, but not a single new fact was brought out.

Dr. Hyde said that on one occasion he undertook to study the ætiology of psoriasis in an athlete. The patient was investigated from every possible point of view. He was examined by a neurologist and an ophthalmologist and other specialists, and nothing abnormal could be found.

With reference to the frequency of the disease in this country, to which Dr. Pollitzer referred, the speaker said that in collecting these statistics, the figures from one part of the country must be dissociated from those of other parts. For example, in the northwest, where he lived, the percentage of these cases greatly exceeded that in the south. The relative infrequency of the disease in the negro was a point that he had touched upon in the discussion at Toronto, also, the fact that it never appeared in the lower animals, and yet it was known that the lower animals shared most of the parasitic diseases with the human family.

DR. E. B. BRONSON said he thought enough had been said to convince the readers of these two papers that their efforts had not been unappreciated. Their clarity, simplicity and thoroughness were to be commended, and the ideas expressed, particularly in Dr. Pollitzer's paper, were closely in line with his own.

In the discussion of these papers, Dr. Bronson said, he would limit himself to two points: One was the relative importance of the local causes from parasitism, which he thought must be admitted, and the causes which existed in the constitution of the skin. He did not think that sufficient importance had been attached to the latter point. With regard to the parasitic origin of the eruption, the evidence was pretty clear. He thought that there was no question but that psoriasis was a dermatological disease, due to a local parasite. There was no more reason for regarding it as a constitutional disease, because it was

influenced by gout or rheumatism or improper diet, than it would be to regard acne as a constitutional disease. It was important to determine, if possible, to what extent the constitution of the skin was a factor in the production of the lesions. Everything pointed to the fact that the eruption was of a very simple character. The parasites that produced it were probably omnipresent, but in addition to these, it was necessary to have a receptivity of the skin.

Dr. Bronson said that another point he wished to reiterate was with regard to psoriasis being closely allied to certain chronic forms of eczema, particularly eczema seborrhœicum. The lesions in this affection might at times be psoriatic, at other times more eczematous in character.

Dr. HENRY W. STELWAGON said that several years ago, while he was looking up the subject of psoriasis so as to present a sufficient description of the disease, he had reviewed the literature very thoroughly and found that the conclusions were about the same as those formulated by the previous speakers. The consensus of opinion was that the lesions of psoriasis were due to a parasite, but that underlying that there was a peculiar susceptibility of the skin or of the general system, and that the latter could be evoked by various causes, such as shock, faulty metabolism, etc. Probably, in most of these cases, a faulty metabolism was at the bottom of the trouble. Dr. Duhring had cited a striking instance where a severe and long-standing psoriasis had disappeared rapidly during an ocean voyage. The same observation was often made also in connection with eczema, the eruption not infrequently disappearing under the influence of an ocean voyage.

Dr. D. W. MONTGOMERY said he was sorry that Dr. Duhring did not prolong his part of the discussion. What he did say, however, in regard to faulty definitions of psoriasis and other allied diseases of the skin, such as seborrhœa and eczema, was decidedly in line with the speaker's views of the subject. Dr. Montgomery said he believed that psoriasis, eczema and seborrhœa were parts of one great disease. In regard to definitions he had always had great difficulty in teaching the subject of eczema to students. In spite of the prevalence of this disease how could it be clearly presented to the undergraduate when the definitions were so inadequate? All that could be done was to get the students to describe the cases as they entered the class room. A diagnosis of eczema would not be made but one would simply feel that the case in question was one of eczema. This was the frame of mind into which he tried to get his students. Psoriasis was a little more simple, because the symptoms were less indefinite, and could be more easily demonstrated to the students. For that reason, he almost invariably asked his students for a description of psoriasis as a part

of their examination, because such a description could be made fairly definite. In addition to these affections, there was para-psoriasis, of which it was impossible to convey any very precise idea, principally because of a lack of proper definitions.

Dr. Montgomery said that he was decidedly skeptical in regard to the parasitology of psoriasis or eczema. As far as the appearance of the lesions of psoriasis after scratching was concerned, an analogous condition could be produced in urticaria and lichen planus.

In regard to the treatment of psoriasis or eczema, he always laid down certain rules as to the patient's diet. Probably all dermatologists did that, and in many cases, as Dr. Stelwagon had said, a sea voyage was of advantage.

DR. SAMUEL SHERWELL, after expressing his admiration of the presentation of this subject by Drs. Pollitzer and Schamberg, said that during his forty years of practice he had seen many cases of psoriasis, and he had never observed but one case, in so far as he could remember, that was associated with tuberculosis, and in that single instance the tuberculosis was of a fibroid character, and the patient lived for a long time. That spoke in favor of the general good health of the psoriasis patient.

As to diet, Dr. Sherwell said he believed that it was largely a question of metabolism. He had certainly found rheumatic or rheumatoid manifestations in most of his cases. Of course, rheumatism was so widespread that it was very difficult to say that this disease or the allied conditions of perverted metabolism exerted any influence on the cutaneous affections.

One of the speakers had referred to the use of meat in certain countries where psoriasis was prevalent, and abstinence from it in countries where the disease was not prevalent. In the latter countries, such as certain parts of France, the lack of meat was counter-balanced probably by the extensive use of cheese, and in other countries by the free indulgence in beers and ales, so that everything considered, the diet was probably a pretty even one. He did believe, with Dr. Bulkley, that it was largely a matter of metabolism, and that the question of heredity also played a part.

In regard to the treatment of psoriasis, he could corroborate what had been said in regard to the efficiency of a change of climate or the beneficial effects of a sea voyage, and he recalled one case where a woman who was sent to London for treatment recovered before she arrived there. It had also been proposed to send these patients to the tropics and rubbed with cocoanut oil.

In closing his remarks, Dr. Sherwell said he could only echo what Dr. White had said, that we were in the same position of ignorance

in regard to the real nature of psoriasis to-day as we were fifty years ago.

DR. HERMANN G. KLOTZ said that he would like to call attention to one point in regard to psoriasis that had not been mentioned. He referred to the tendency of many of these cases to get well, or almost well, spontaneously during certain seasons of the year. In some the eruption would occur in the summer; in others in the winter. This phase of the disease, he believed, could easily be reconciled with the parasitic theory.

DR. GEORGE PERNET said he agreed practically with the views expressed by the readers of the papers. Dr. Schamberg, in his paper, had alluded to the views of Dr. Radcliffe-Crocker. The speaker said that during his sixteen years' association with Dr. Radcliffe-Crocker they had many times observed that psoriasis cases exhibited a primary patch—perhaps two—which remained for some weeks or months before there was any generalization of the disease. Such a mode of development of the eruption was much in favor of the parasitic theory, and pointed to the necessity of vigorous treatment of these early lesions. In some cases one met with very symmetrically situated patches which pointed to the possibility of auto-inoculation by contact. There was another affection in which a similar primary patch had been observed, namely, pityriasis rosea.

With regard to the presence of a parasite in psoriasis, its existence had thus far not been demonstrated. Still, when, for instance, the late Sir Erasmus Wilson was shown the parasite of *tinea tonsurans*, he did not accept it as the causative factor of the disease, and added that he could not comprehend a vegetable growth in the hair.

With regard to the effects of diet in psoriasis, Dr. Pernet said he had not been able to satisfy himself that it played the slightest part in the evolution or development of the affection, excepting, perhaps, the use of coffee and alcohol in acute or sub-acute cases. He had seen psoriasis in all sorts and conditions of people, and both in vegetarians and meat eaters, and he had never found that the patients were benefited by cutting off the meat or dieting them strictly.

Speaking of heredity, Dr. Pernet said it had always struck him that the word heredity was used too much in a non-biological sense. In the medical profession, the word was used very loosely, which, in his opinion, was extremely unscientific.

With regard to *eczema seborrhœicum* he agreed with Dr. Pollitzer that Unna, who had done so much for dermatology, had really handed down an apple of discord for future generations. Personally, the speaker said, he had never been able to accept Unna's views about *eczema seborrhœicum*, and as far as that was concerned, he was very much in agreement with what the readers had said.

DR. MILTON B. HARTZELL said he could only re-echo what had been said about the excellence of the two papers that had been presented. He was particularly pleased that Dr. Pollitzer disagreed with the opinion that rheumatism or gout had anything to do with psoriasis.

As to the inherited character of psoriasis, it seemed to him that there was something—whether strictly heredity or not—that predisposed several members of the same family to the disease. He was also glad to note that most of those who had taken part in the discussion had taken the view that diet had nothing to do with the disease. Personally, he was quite sure of this, and he had never been able to convince himself that a meat or vegetable diet had anything whatever to do with the affection. In fact, this was so plain that he did not see how it admitted of any serious discussion. The one theory that appealed to him was the parasitic view. The particular parasite, it was true, had not been demonstrated, but its presence was strongly indicated by various clinical features of the eruption. One point which had always impressed him was the fading away of a lesion at the point of contact of two lesions, showing that a transitory immunity had been produced at that point. It was very difficult to explain the spread of the eruption on any other grounds. What the parasite was could not be determined at present.

Another point in favor of the parasitic origin of the disease was the improvement following the application of parasiticides. Of these, the most rapidly efficacious was chrysarobin, which was introduced for the treatment of ringworm. Tar preparations were also very serviceable.

As to the possibility of auto-inoculation, Dr. Hartzel said he had some doubts as to whether the appearance of some of these lesions should be attributed to that factor. He thought they should rather be regarded as the result of traumatism on a skin already predisposed to this particular form of eruption.

DR. JAMES C. JOHNSTON said that now that Drs. Pollitzer and Schamberg had cleared away the old débris surrounding the ætiology of psoriasis, it remained to examine the evidence that was left.

If we were to accept the theory of heredity as a causal factor, it must be shown that the descent was in accordance with the Mendelian law. As regarded the parasitic theory, with which the speaker said he was in considerable sympathy, the controls to prove it had to be numerous—in fact, almost wasteful. The experiments must be done on the individual himself and on members of his family, both on those that seemed predisposed and upon completely healthy individuals, as well as on laboratory animals. He would suggest to Dr. Schamberg not to cover his inoculations with a vaccine shield.

Everyone knows the influence of drug habits in the production of

disease; for example, the influence of chloral hydrate in the development of psoriasis.

He did not agree entirely with Dr. Pollitzer that one could dismiss the theory of participation of disturbed metabolism. The case that the reader quoted from Dr. Johnston's paper was one of inveterate psoriasis, which was included in the list as a control experiment and was hardly a fair test. If metabolic disorders were to be investigated, it should be in the prodromal or early periods of attacks. Moreover, the changes in the body were not complete when only the carbohydrates, proteids and fats were considered.

DR. THOMAS C. GILCHRIST said that the work, to prove or disprove the parasitic origin of psoriasis, should be carried along experimental lines, and it would be greatly aided by the use of the dark-field illumination, which might make it possible to find the parasite. Another method was that of ultra-precipitation. By this method the fluid became quite turbid, and many ultra micro-organisms were found which could not be seen by other methods. Two of the students at the Johns Hopkins had taken up this work in connection with psoriasis. They had collected a quantity of scales from psoriatic lesions and inoculated them into guinea pigs and mice. Given sufficient amount, the animals died of staphylococcus albus infection.

DR. SIGMUND POLLITZER said he was particularly gratified at the apparent unanimity of opinion in regard to the parasitic nature of psoriasis, which he regarded as a distinct advance in our conception of the nature of the disease. Psoriasis was no longer attributed to gout or rheumatism or disturbed metabolism, but to a parasite; that was the important point.

As to the influence of heredity, to which Dr. White had referred, that point, he thought, had been fully covered in the discussion. Our opinions of heredity were no longer as vague as they formerly were. We demanded something definite before we accepted hereditary transmission. The evidence of the hereditary nature of this disease rested on the fact that it had occurred a number of times in a given family, but this could also be explained by the parasitic theory, and it would be far more reasonable than it would to accept a form of heredity that did not fit at all with the known laws of heredity. We had no more grounds for believing psoriasis hereditary than we formerly had for believing in the hereditary nature of scabies. Of course, scabies was an acute process, and its parasitic nature was now very clear, but it was not clear a hundred years ago. In a disease like psoriasis, which was chronic in character, lasting for months or years, or even a lifetime, it was difficult to demonstrate its contagiousness from clinical evidence.

Dr. Pollitzer said that Dr. Duhring complained that the definition of psoriasis was indefinite. Personally, he thought that the description of the disease, as found in the text-books, was far too definite, in that it represented only one phase of psoriasis. He regarded it as a much more comprehensive disease, including a large number of affections that were now put down as eczema, etc.

As to the effect of diet as an ætiological factor in psoriasis, he could only reiterate what he had already said, that it had nothing whatever to do with the affection, and he agreed with Dr. Hartzell that this was so plain that he did not see how it admitted of any serious discussion. Dr. Bulkley, however, took a contrary view. In all discussions of this sort, perhaps, there was a certain amount of prejudice, but we should not substitute our prejudice for scientific demonstration. There was no doubt that a change of diet or surroundings sometimes had an influence on the course of psoriasis, but not on its development. The same was true of other parasitic diseases. There was not a parasite that would grow on every skin under all conditions; every parasite demanded certain conditions for its development. We called that the condition of the soil, and spoke of it as predisposition. Personally, he objected to that term because it was mystical, and he preferred to use the expression "the condition of the soil." This would vary with the patient's condition and surroundings.

DR. JAY F. SCHAMBERG said he was opposed to so extending the definition of psoriasis as to include eczema seborrhœicum. The fact that clinical resemblance did not necessarily imply essential identity of process should not be overlooked. While a condition regarded as seborrhœic eczema might ultimately develop into psoriasis, that would indicate to him that the psoriasis had merely begun in an unusual way. He would place much more weight on the ultimate course of the affection than on the mere appearance of the clinical lesions.

In regard to the parasite of psoriasis, we were of course in the dark at the present time. The discussion had shown considerable variance of opinion concerning the weight that should be attached to the development of factitious lesions, and Dr. Schamberg said he hoped that some of the members would be able to carry out and extend these experiments themselves, in the hope of establishing the real significance of the phenomena. With the discovery of the parasite of psoriasis, all of our theoretical objections to the infectious origin of the disease would vanish, just as they had done in connection with other diseases of proven parasitic origin.

IDIOPATHIC MULTIPLE HÆMORRHAGIC SARCOMA
(KAPOSI): TRAUMA AN ÆTIOLOGICAL
FACTOR (?)*

By DAVID LIEBERTHAL, M. D., Chicago.

IN the histories of the cases reported in the literature, in only a small number is mention made of external influences acting upon the skin, where the disease later began to develop. It is on that account that the writer will call attention to trauma having preceded the disease in two of his cases. By thus pointing out the possibility of trauma as a cause, more stress may, in the future, be laid upon securing information as to the ætiological factor when comparing the histories of patients. For the last thirty-seven years, since Kaposi first called attention to and described this idiopathic multiple hæmorrhagic sarcoma, its classification clinically, as well as anatomically, has been the cause of considerable controversy. But gradually authors are more and more inclined to share the view taken by Kaposi, that this affection is a form of sarcoma. It would, therefore, be the more interesting to ascertain whether or not trauma plays any rôle in the development of this disease, inasmuch as in sarcoma proper quite frequently cases occur in which trauma has acted upon the locality where the tumor has later developed.

The case to be reported is the fourth observed by the writer. Two were described as cases I and II ("Sarcomatosis Cutis," *Jour. Am. Med. Assn*, Dec. 6, 1902). The third was published in the same Journal for October 10, 1908.

The present case was demonstrated before the Chicago Dermatological Society in October, 1908, soon after the patient was first examined, when the following history was obtained: He was a cabinet-maker by occupation. He was born in Russia forty-four years ago, was married, and the father of seven healthy children. His father died after a paralytic stroke, and his mother from post-partum hæmorrhage. One brother and four sisters were living and

* From the Dermatological Service of the Michael Reese Hospital.

well. No member of the family was ever afflicted with a skin disease. He never had venereal accidents, and always enjoyed good health. About Christmas, 1906, after lifting a box, it dropped upon and bruised his left ankle. This and the whole leg became swollen and painful. Incisions were made and a considerable quantity of pus was evacuated. The swelling subsided, and the leg healed. About a year ago the foot and leg swelled. They have since remained in this condition. Eight months ago small nodes began to appear at the site of the former injury, spreading upward and gradually covering the leg to the knee. Two months ago the right foot and leg also became swollen and the seat of nodes. At no time was itching present, although he suffered from pain in the feet after rising in the morning and on long standing. He had the appearance of a tall and muscular individual. The internal organs and nervous system were found to be normal, as was also the urine. The blood showed normal conditions except that the hæmoglobin was reduced to sixty-five per cent. The accessible mucous membranes were free. There was no glandular involvement. The cutaneous surface was normal, except that of the lower extremities below the knees. The limbs were considerably thickened, clumsy and misshapen. This was mostly apparent on the feet and around and above the ankles. The toes were broadened, and especially so at their bases. The skin was firm and showed but slight pitting on pressure, which caused no painful sensation. The excursions of the joints were quite free. The left leg, from the ankle up to within a few inches of the knee, was more or less covered, all over its surface, with numerous closely and irregularly arranged, flat, and hemispherical, firm nodules and nodes of roundish or irregular shapes. They were of various sizes, from a pinhead to that of a bean, a few only being larger. The color of most of these lesions was bluish-red, while some were dark-brown to nearly black. The bluish lesions paled somewhat on pressure. Desquamation was noted on some of them. The right leg was affected to a lesser degree. From the ankle to about half way up the tibia, numerous lesions were present. They presented the same characters as on the left leg. They were, however, of no larger size than that of a bean and pale red. Both feet presented on their dorsa and around the malleoli, scanty nodules and nodes. The broadened toes showed no nodules, but on their dorsa, at their bases and between these, were densely set, short filamentous horny excrescences in brush-like arrangement.

The treatment of the patient consisted of hypodermic applications of arsenic, which were continued with intervals of rest over a period of five months. No effect, however, was produced. For various reasons the treatment was discontinued for a few months. When I saw him again I found that his limbs had grown considerably worse. They had increased in thickness. On the left leg, especially on its anterior and lateral aspects, many lesions had increased in size, and some had coalesced and developed into spongy masses, which were covered with lamellar scales. The lesions on the right leg were larger and their color had changed to bluish-red, although they were still firm. In spite of these changes, the disease had not spread above the knees. The pain had been increasing, frequently compelling him to remain in the house.

The microscopical findings in the sections of a nodule excised from the left leg were mainly the following: The epidermis was practically normal. The corium as a whole was thickened and contained numerous cavities representing dilated, preformed and newly developed blood vessels, and to a greater extent widened lymph vessels and lymph clefts. Some of the blood vessels had thickened walls. Around and in the closest proximity to these blood and lymph vessels and clefts, were accumulations of small spindle cells, and a lesser number of round cells. This cellular element was partly arranged in bundles and streaks, and partly in irregular masses or nests. Within these cellular masses were encountered numerous clusters and granules of a glistening yellowish-brown pigment. Some blood vessels were ruptured, and blood could be seen extending from them into the surrounding cell masses. The connective tissue was hypertrophied where the cells were scarce, while it was scanty and thin within the cell masses, where also the elastic tissue was scanty and distorted. All these changes were especially pronounced in the middle and lower strata of the cutis. The process extended down to and into the subcutaneous tissue.

This case offers clinically, as well as histologically, the typical characteristics of Kaposi's idiopathic sarcoma, of which there are not more recorded in American literature than about ten, although a little over a hundred cases are published in all. It is rather a disease of individuals in lower stations of life, who are more ex-



FIG 1.



FIG. 3



FIG. 2

posed to common injuries and inclemencies of the weather. In a number of cases exposure to cold and a drenching preceded the beginning of the affection. In many instances the extremities became swollen and soon afterward lesions made their appearance. How much this depended upon injury is difficult to ascertain. In Bernhardt's case (*Arch. f. Dermat. u. Syph.*, 1902, lxiii, p. 239) the sarcomatous process began after an attack of erysipelas. Whether this latter was preceded by injury is not recorded. Of the four cases of the present writer, two give a clear history of trauma.

CASE 1 (cited above). A German, forty years old, bruised his left leg while stepping off a street car. Soon the feet began to swell and afterwards became the seat of sarcomatous lesions. In Case IV (here reported), the first lesions developed at the site on the left leg, which was previously bruised by a falling box. It is possible that the above mentioned thermic, infectious (erysipelas) and mechanical injuries were mere coincidences in the development of the disease. If, however, more numerous instances of such concurrence should be recorded, it will tend to strengthen the assumption that trauma is a factor in the causation of idiopathic multiple hæmorrhagic sarcoma (Kaposi).

DESCRIPTION OF PLATES

FIGURE 1. Drawing from a histological section showing the cellular infiltration, lymph and blood vessels, and clusters and granules of pigment.

FIGURE 2. Posterior aspects of the legs.

FIGURE 3. Inner view of right leg and outer view of left leg.

REVIEW of DERMATOLOGY AND SYPHILIS

Under the charge of GEORGE M. MACKEE, M. D.

TREATMENT OF SYPHILIS

The Comparative Value of the Internal Administration, Inunctions and Injections of Mercury in Syphilis. E. C. HAY, *Jour. Am. Med. Assn.*, 1909, liii, No. 9, pp. 674-680.

The internal, inunction and injection methods should be employed in the treatment of every case of syphilis; or the internal and inunction combined; or the internal and injection combined; depending on the condition of the patient, his surroundings, etc., as to which is the most advantageous or convenient under the circumstances as they exist. The internal administration alone cannot be depended upon because its action is too feeble and slow. The old "mixed treatment" gives beautiful results in some cases of old tertiary lues with pronounced anæmia and cachexia. Hay prefers, when giving mercury by mouth, to employ a pill containing biniodide of mercury and the iodide of arsenic and gold, also Bernheim's "pill enteric," slightly modified and containing a fourth of a grain of metallic mercury, one-half grain of hydrated wool fat and one-half grain of purified ox-gall. The ideal way of administering mercury is by inunctions, but its application is disagreeable and meets with several objections: First, it betrays the patient's secret. Second, it is filthy and may cause a severe dermatitis. Its advantages: It is not painful, it is free from danger, it is potent and intense, and does not affect the gums as quickly as the internal administration (but when stomatitis occurs, it is more severe). There are some patients, however, whose skin does not absorb mercury.

The rubbing should be done by a trained attendant or masseur. Hay describes at full length the Hot Springs technique, which insures the greatest possible absorption of mercury with the least possible irritation of the skin.

Soluble injections have no marked advantage over inunctions. Those who improve under injection treatment and not under inunctions are those whose skin is impervious to mercury. The idea that mercury, when administered by inunction, is absorbed by inhalation under the form of mercurial vapor, Hay calls absurd. This is proved a fallacy by direct histological examination of the skin of rabbits after inunction; and also by the fact that professional attendants, after thirty years of practice, do not show any symptoms of mercurial poisoning.

As for injections, Hay does admit that they are convenient, insure regular treatment and leave the stomach free. But he does not see any advantage in the more accurate dosage of mercury, for no two persons require the same dose and frequently the dose has to be changed at various times in different patients. The certainty of the absorption of mercury depends on the material not becoming encapsulated, as frequently happens. The claim that injections do not interfere with the gastro-intestinal system is a grave mistake. So is, also, the belief in there being less chance of toxic symptoms. The therapeutic intensity and physiologic effect is much more marked and lasting when the insoluble preparations are given, but not so when the soluble salts are employed; these are inferior to inunctions in most cases. As to securing the greatest effect with the smallest amount of mercury, this is of minor importance. It matters little how much mercury is used, as long as it does not injure the patient and he improves while under its administration.

The best soluble injection is that of bichloride, the following formula of which is not too painful:

Bichloride of mercury.....	gr.	viii
Phenol	m.	viii
Physiologic salt solution.....	℥	i

M 15 to 30 every other day.

Insoluble salts are the most powerful when employed by the injection method, but they are not free from danger. Hay has not used calomel; he has used the salicylate and Heidingsfeld's modified gray oil with very satisfactory results.

The following table represents a plan of intermittent treatment as advocated by the author:

FIRST YEAR

Two months' inunctions or injections.

One month's rest.

Two months' internal treatment.

One month's rest.

Repeat in the last six months.

SECOND YEAR

Six weeks' injections or inunctions.

Eight weeks' rest.

Eight weeks' internal treatment.

Four weeks' rest.

THIRD YEAR

One month's internal treatment.
 One month's rest.
 One month's internal treatment.
 One month's rest.
 Continued throughout the year.

FOURTH YEAR

Six weeks' inunctions or injections.

FIFTH YEAR

Four to six weeks' inunctions or injections.
 Finally, one course of treatment of one month each, for the next five years.

On the Reaction Provoked by Injections of Sublimate and Its Relation to the Wassermann Reaction in Syphilis. A. BUSCHKE AND H. HARDER, *Deutsch. med. Wchnschr.*, 1909, No. 26.

Herxheimer and Krause were the first to direct attention to the fact that, after injection of a first and large enough dose of mercury, syphilitic eruptions of the early period, even when extensive and not localized, show a peculiar reaction. After fifteen to twenty-four hours, macules become larger and assume an urticarial and papular character; papular efflorescences may also become urticarial-like and show a red halo. The reaction disappears after thirty-six to forty-eight hours; it appears only after the first injection of a high dose of mercury, and never after subsequent injections. In a later work Welander, who has already recognized the reaction as being of practical importance, has confirmed and added to the findings of Herxheimer and Krause and mentioned several interesting peculiarities. He also, although on a small scale, began investigations to find out whether the same reaction would show at a period when there was only a primary lesion. In seven cases, he tried to produce an exanthem before the appearance of secondaries, through an injection of ten centigrams of mercury salicylate. In four cases, he obtained nothing; in one case, after twenty-four hours, a few macules; in another instance the same, after forty-eight hours; in still another, after three days. Welander leaves the question open as to whether the eruption was caused by the injection of mercury, and even considers it unlikely.

Buschke and Harder have used, for years, the same reaction in hospital practice, before the advent of the general manifestations, to shorten the second incubation period. They stand firm on the point that mercury has its full beneficial effect in syphilis only after the appearance of secondaries. They claim they can make the secondaries break out rapidly by an injection of mercury, and have done so in a great

number of cases; Welander's failures were probably due to a faulty technique. A large, massive dose, rapidly absorbed, has been found necessary, and Welander used an insoluble salt. The writers use 4 cg. of corrosive sublimate. The exanthem appearing within twenty-four hours may justly be considered as caused by the injection; those appearing later are of less certain origin. The eruptions observed were generally macular, seldom papular, with medium-sized elements, localized to the trunk, less abundant on the face and extremities. In all cases, it was carefully ascertained that there was no trace of an exanthem prior to the injection. Histologically, Buschke and Harder proved that the eruption was not a mercurial dermatitis, but a regular roseola. In nature, the reaction could be compared to the tuberculin test.

Trying to ascertain the relations between the mercury reaction and the Wassermann reaction, the writers have tabulated the following results: They injected 46 cases with a positive reaction in 20. In 22 cases, a negative mercurial test was followed sooner or later by a positive Wassermann reaction. In 4 cases, both tests were negative, although the diagnosis of syphilis was very plain at a later date. In the 20 positive injection tests, 13 showed a positive Wassermann before the injection; in the other 7 cases, it passed from negative to positive. There was no direct relation between the two reactions. But the writers remind us that the Wassermann reaction has no direct relation with the mercurial treatment. So the lack of parallelism between the two does not detract from the value of the sublimate injection reaction during the second incubation.

The Alterations Caused by Injections of Gray Oil. PELLIER, *Ann. de dermat. et de syph.*, 1909. x. Nos. 4 and 5. pp. 294-307.

Pellier has been able to study these alterations in specimens obtained from the body of a young girl, treated by injections of gray oil, for cerebral symptoms of possibly syphilitic, but more probably tuberculous origin. She received in all five injections, and died four days after the last one.

Such specimens are very rare, not more than two or three having ever been obtained; experimental specimens obtained from animals do not have the same value; hence the interest that attaches to Pellier's somewhat lengthy histological descriptions.

The lesions that gray oil determines in muscles differ from those it produces in connective tissue, though, of course, the general processes of absorption of mercury and resolution in sclerosis are somewhat similar in character. Mercurial absorption is much more rapid in muscles.

In human tissues, the mercury is found either in droplets or in a combined form. The droplets vary much in size, and these variations depend probably solely on the fineness of the emulsion employed. The droplets of free mercury are not found in specimens older than those studied within ten days. At any rate, at the end of the third week, all

of the mercury is in the combined state. In connective tissue, the same change occurs, only much later.

The combined mercury appears as black granulations, either spherical or irregularly shaped. The mercurial nature of these granulations is confirmed by the finding of droplets showing a graded series of changes from the centre to the periphery. This refutes the opinion of some writers, who consider these black granulations as coming from the oily menstruum.

The first lesion of the muscular tissue is a hæmorrhage, which appears under two forms: First, masses of red corpuscles; second, large deposits of amorphous fibrinous material, containing spaces and showing a tendency to organize into granulation tissue. The spaces of this pseudo-abscess often contain metallic mercury. These spaces are the most constant and most studied feature of all specimens. Their origin seems to be still doubtful. Pellier thinks they are due to the division of the injected substance and that absorption of the mercury by phagocytosis takes place along their edges.

Around the central clot, a marked reaction of the connective tissue cells, with a strong tendency to fibrous organization, can be seen. The muscle-fibres degenerate. Pellier has never seen the preservation of these fibres as described by others.

The Intramuscular Treatment of Syphilis with Special Reference to the Insoluble Preparations of Mercury: A Critical Review.
G. PERNET, *Lancet*, 1909, clxxvii, No. 4482.

This article is essentially a plea for the more frequent use of two insoluble mercurial preparations, calomel and more particularly gray oil, which have not yet found in English-speaking countries the favor they now enjoy in France. Intramuscular injections, whether soluble or insoluble, are but one means, and a very valuable one, of treating the affection; and they are not to be used in a routine manner for each and every case of syphilis. It is the careless manner of using insoluble injections that has brought upon the method much undeserved criticism.

Pernet states emphatically his belief in an early treatment, without waiting for secondaries to appear, as has been long the custom, and as some still recommend. Also, the treatment must be continued with perseverance and for a long period.

Insoluble preparations are much opposed in England, but this opposition comes from men who, although eminent, do not seem to have taken any pains to gain actual experience with the method. This negative attitude is explained by the fact that several fatal cases have been recorded as a result of the use of gray oil. The author discusses all the cases reported and shows that the fatal result was due either to a faulty technique, or to the existence of serious contraindications, which ought

to have prevented, from the start, the use of gray oil. The treatment is dangerous unless carefully applied; it is not a routine treatment, which may be carried on in a haphazard manner.

Next, he exposes the encouraging results obtained by the adepts of the intense early treatment combined with excision of the chancre. Without being absolutely conclusive as to a real "abortion" of syphilis, they are certainly remarkable. However, Pernet has not felt often justified in applying this "abortive" treatment to its full extent; but what he has seen of it has been highly encouraging. The best gray oil is that of the French Pharmacopœia:

Purified mercury	40 gm.
Anhydrous lanolin, pure and sterilized....	26 gm.
Medicinal oil of vaseline, sterilized.....	60 cc.

This is put up in small glass-stoppered bottles of 1 cc., containing 40 cg. (6 gr.) of mercury. It is essential to use a uniform gray oil, or accidents may occur.

Gray oil has caused accidents—this is not to be denied—but so have soluble preparations, and inunctions have several times caused death. Inunctions are badly borne by those suffering from fairly recent malarial and tropical infections. In such cases, insoluble preparations would be contraindicated. Arsenic is, on the other hand, very valuable in this class of cases.

Calomel is the most important and reliable preparation of mercury in syphilis* of the nervous system, either in the secondary or the tertiary stage. Even if calomel is very painful, even if it exposes to mercurial intoxication, we must not hesitate to employ it, because the consequences of the syphilitic infection are still more dangerous.

Concentrated calomel preparations are better borne, seemingly, than those usually employed. The 40 per cent. preparation of Lafay has also the advantage of having the same dosage as gray oil.

For insoluble preparations, one must use either the E. Fournier, or the Lévy-Bing-Lafay syringe; the maximum dose to be injected consists of 15 cg.; but it is advisable not to exceed 10 cg. for men and 5 to 7 cg. for women. The needles must be tested for lateral cracks, and for permeability just before using. In selecting the point of injection, care must be taken to keep to the upper parts of the buttocks, well away from the danger zone of vessels and nerves. The patient lying on a couch, after thorough disinfection of the skin, the needle is adapted to the empty syringe and plunged rapidly and perpendicularly into the muscle. The piston is then gently drawn up two or three times in the barrel in order to ascertain if the point of the needle has or has not penetrated a vessel. If any blood appears the needle may be either withdrawn a little and the test repeated, or withdrawn altogether and another spot selected. The barrel is then detached

from the needle and filled with the mercurial preparation, which should be slightly warmed and well shaken previous to the injection. The dose is then slowly but firmly introduced into the muscle. Duhot recommends that before the needle is removed, the barrel of the syringe be detached and partly filled with air or sterilized salt solution. The syringe is then readjusted to the needle and the contents injected. This is done to force all the mercury out of the needle so that when the instrument is redrawn a track of insoluble material will not be left. This manœuvre will have a tendency to prevent the formation of furuncles.

Before beginning the treatment, the teeth should be put in good condition and the urine examined. Renal inadequacy, old age, invalidism, pregnancy, tuberculosis, saturnism, gout and alcoholism contraindicate the use of insoluble preparations. In a general way, women require a more careful supervision than men.

BOOK REVIEW

La Syphilis, Experimentation—Microbiologie—Diagnostic: C. LEVADITI et J. ROCHE; avec préface de M. LE PROFESSEUR METCHNIKOFF. Avec 59 figures dans le texte, et 2 planches hors le texte en couleurs. Paris, 1909. *Masson et Cie.*

During the past six years more progress has been made in the study of syphilis than in any previous period. It was the longest to baffle the investigator in his search for a specific ætiologic agent; but once the micro-organism discovered, many were quick to renew their efforts, with the result that the spirochæta pallida has taken its place among the microbes which have definite infective properties. Among the active workers have been the members of the staff of the Pasteur Institute, one of whom, Lévaditi, has been the most prominent; hence it is fitting that he should be the senior author of a volume which represents the present state of the subject.

The three stages of human knowledge, theologic, metaphysic and scientific, are traced in their evolution through the study of syphilis by Metchnikoff in the introductory chapter. The scientific stage is not yet complete, but enough exact information has been obtained to justify its present collection, arrangement and criticism.

Part one deals with experimental syphilis after a brief historical sketch, in which the fallacies of the conclusions from the early experiments on man are exposed, the results of animal experimentation are given. The frequency of successful inoculations and secondary symptoms in anthropoid apes is contrasted with the smaller per cent. of chancres and absence of later symptoms in monkeys, and the purely local lesions produced by the introduction of the virus into the eye of the rabbit, sheep and guinea-pig. The portal of entry of the virus in animals susceptible to general infection is cutaneous, as deep implantations and injections into blood vessels are usually unsuccessful. The incubation period is fairly constant for the different species of animals, but it may be shortened for a particular species by repeated passage through several members of that species. The general invasion of the organism occurs long before the appearance of the initial lesion, hence the futility of the excision of the chancre. The infectiveness of the primary and secondary lesions is similar to that noted clinically, and the possibility of infection from tertiary lesions is definitely established.

Under the head of immunity the importance of the relative use of the term is emphasized, as the possibility of reinoculation during the different periods of the disease has been definitely established by experimental methods. The interesting observations of Finger and Landsteiner that cutaneous inoculation of material from chancres into patients in the late stages of syphilis at times gives rise to gummata and ulcerating syphilides, seem to prove it is the condition of the subject and not an alteration in the nature of the virus which determines the character of the local lesion. More work, however, is needed along this line. The attempts at vaccination and serum therapy have been without avail; the only successful prophylactic measures are the use of some mercury preparation locally within a few hours after exposure, and the injection of atoxyl during the first few days after inoculation.

In the discussion of serum diagnosis the opinion is advanced that the com-

plement-binding substance is not a true antibody, but the increase of some material normally present in the serum. Nevertheless, the application of the Wassermann reaction is strongly recommended, as a means of diagnosis as well as to control treatment.

In part two the microbiology of syphilis is discussed. Following a historical account of the various microbes of earlier workers, the discovery of Schaudinn with its confirmation by many others is fully reviewed. The appearance of the *spirochæta pallida* in the living state and the color affinities of the typical and atypical forms are minutely described, and its biologic characters and relation to other *spirochætæ* are discussed. The authors are inclined to regard the organism as a bacterium, or at least to consider that it occupies a mid-ground between the animal and vegetable kingdoms.

The *spirochæta pallida* has been detected in smears from chancres, the various secondary eruptions and even in late tertiary lesions, and the frequency of such findings is nearly parallel with the contagiousness of the lesion. It has been occasionally found in the blood, only once in the spinal fluid, and not infrequently in the urine, especially in syphilitic nephritis. In the small number of observations on smears from the internal organs of syphilitic adults only rarely have the organisms been found; this is in marked contrast to their nearly constant presence in smears from the viscera of subjects of congenital syphilis.

Part three describes the histopathology of the various lesions with special reference to the distribution of the *spirochætæ*. Their affinity for the walls of the lymph and blood vessels is very marked. The organisms have been found in sections from all the syphilides and from specific lymph nodes. Their paucity in sections from the organs of adults with their universal presence in the viscera of congenital syphilitics corresponds with the findings in smears. This may be explained on the ground of immunity; in adults the resisting processes have led to the destruction of most of the *spirochætæ*, while in the fœtus such processes have not made themselves manifest. The constant recovery of the *spirochæta pallida* from the lesions of experimental syphilis, with their frequent demonstration in acquired and congenital syphilis, proves beyond a doubt its specific ætiologic character.

The fourth and concluding part of the work is devoted to methods of technique for examining the *spirochætæ* in the living condition in smears and in sections. A chapter on the technique of serum diagnosis ends the book.

There are many half-tone illustrations, all of drawings. These would be more instructive if micro-photographs were presented. As a whole the work is comprehensive, and admirably presented; mooted questions are not dismissed without both sides of the argument being presented. Many points yet to be determined are mentioned. No student of syphilis, whether clinician or pathologist, can well afford to be without the information imparted in this volume.

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SOME OBSERVATIONS ON THE RESULTS OF THE WASSERMANN TEST IN SCLERODERMA.*

By HENRY H. WHITEHOUSE, M. D., New York.

THE inspiration for the present paper was derived from a discussion on the subject of scleroderma which followed the presentation of a case by Dr. Trimble before the New York Dermatological Society, at its meeting in March.**

Dr. Lustgarten on that occasion said: "The question of the ætiology of scleroderma had aroused a new interest in him lately. About two weeks ago he saw in consultation a case of quite extensive scleroderma with mask-like face, and also sclerodermatous changes of all extremities up to the knees and elbows. The patient was a woman fifty-six years of age and a widow for twenty years. She had had no children. The history was of no assistance. The changes had started and progressed rather rapidly within about a year. He was particularly impressed with the appearance of incipient sclerodactylia on the hands, and by clinical resemblance of that to certain forms of the Raynaud type. Of the latter he had seen quite a few cases in the last few years, mostly in Polish and Russian Jews, and had reached the conclusion that at least a number of these were due to an obliterating process of many small arteries and veins of a specific nature. He had presented one or two such cases, and expressed the same opinion at the time. It was known, besides, that in the pathology of scleroderma, blood vessel lesions were very much in evidence. For these reasons he advised a Wassermann test, which turned out to be *strongly positive*. The patient had been given specific treatment. So far as he knew, this was the first positive Wassermann test in scleroderma, and he did not consider it a mere coincidence."

Having had two cases of diffuse scleroderma with sclerodactylia under my care at the New York Skin and Cancer Hospital—Dr. Bulkley's service—during the past summer and winter, material

* Read before the 33d Annual Meeting of the American Dermatological Association, Philadelphia, June 3-5, 1909.

** *Jour. Cutan. Dis.*, 1909, xxvii, p. 304.

was thus available for investigations in this direction. Through the generosity of my colleagues I am able to add four more cases, making with Dr. Lustgarten's a total of seven. Five of these were examples of diffuse symmetrical scleroderma, while two were of the band-like, morphœa type.

Case I.—Mary M., a little Italian girl of ten years, is the oldest of five children, three of whom died at the ages of five, one, and three years respectively; the youngest is living, aged seven months. Parents healthy. The disease began one year and eight months ago, and has progressed rapidly, so that both extremities and portions of the trunk are now extensively involved, the left side more than the right. All of the fingers of the left hand are rigid and flexed upon the palm, which is likewise invaded. The entire circumference of the forearm and outer two-thirds of the arm are sclerodermatous, the whole limb is greatly shrunken, and the movements at the elbow restricted.

The entire left lower extremity, including the foot and toes, is sclerodermatous, except a narrow strip of healthy skin from the ankle to the groin, on the inner surface; there is a small ulcer at the outer surface of the knee. The movements of this joint are restricted, and the entire limb is much smaller than its fellow.

The right upper and lower limbs are affected in the same manner, only to a lesser degree. There is less restriction of the movements at the elbow and knee, and only the ring and little fingers are rigid and flexed, the palm and other fingers being free. There is a small ulcer on the upper surface of the right foot. The trunk, anteriorly and posteriorly, is partially invaded by the disease, and likewise the buttocks, but more pronounced on the left side than on the right. The skin presents the usual changes with accompanying pigmentation and telangiectasia.

This patient has just completed a course of thirty injections of fibrolysin (Merck), 2.3 c.c., having been given deep into the buttocks three times a week. The only result is a freer movement of the fingers, elbow and knee joints.

The Wassermann reaction in this case was *strongly positive*. The father and mother were submitted to the same test, which was negative in the father, but faintly positive in the mother.

Case II.—(Dr. Levisseur's.) Mrs. H. R., aged forty-five, a Russian Jewess, is the subject of extensive scleroderma of the extremities and face with sclerodactylia. She is the mother of three living children, and has had eight pregnancies, the last being twins, one of which died. There were three miscarriages and one voluntary abortion.

The disease began ten or twelve years ago on the hands and feet, and has gradually spread up the legs and arms, and five years ago affected the face. Both arms and forearms are sclerodermatous on the

outer side, softer on the inner side. The fingers of the right hand are stiff and clawed, with superficial ulceration at the tips of two of them, of a year's duration. The left hand is affected in the same manner, but to a lesser degree. The left foot and leg are more affected than the right, but the disease does not extend higher than the knee. The skin of the face, particularly over the nose and fronts of the cheeks, is tight and drawn, the left side worse than the right, accompanied by telangiectasia. The teeth have all fallen out, and the gums are pale and atrophied. The inter-dental ridge on the inside of the right cheek is whitish in color and rather tense.* The affected skin is hyperæsthetic. The Wassermann test in this case was *strongly positive*.

Case III.—(Dr. Bulkley's.) Maggie P., is an unmarried American woman, aged fifty-two years, in whom the disease began twenty-two years ago. She is the youngest of a family of seven children, two older sisters are still living, two died in infancy, one brother died at the age of forty-eight years of heart disease, and a sister at fifty-three of apoplexy. The mother lived to be eighty-four.

The disease began on both hands with Raynaud's phenomena of alternating periods of ischæmia and asphyxia; tightening of the face was noticed at the same time. Early in the disease, the tongue was much enlarged, and the teeth loosened and fell out. At present, all fingers of both hands are claw-shaped and stiff, and the skin hide-bound; absorption of the terminal phalanges has taken place in every digit, but the nails are present, except on the right fore-finger, which was destroyed by an ulceration some years ago. The process ends at the wrists.

Both feet show lividity and coldness of all the toes, with the skin, including that over the foot and ankle, sclerodermatous. There is a small ulceration over the outer malleolus of each foot. The face is mask-like, with telangiectasia over the nose and cheeks, and much contraction about the mouth. The patient has had a constant cough and hoarseness for the past four years, but repeated examinations have failed to reveal any tubercle bacilli. Possibly the invasion of the laryngeal mucosa by the disease is the cause of these symptoms. The patient has been under "mixed treatment" for over a year, and Dr. Bulkley states that there has been much more improvement than by any other previous treatment.

The Wassermann test in this case was *faintly positive*.

Case IV.—Rose P., is a Hungarian woman, thirty-five years of age, with a symmetrical sclerodactylia of about ten years' duration. She has also a drawn, tightened condition of the face, particularly over the nose and around the mouth. The patient has been married eleven years and has had three children, two of whom are living, aged respectively eight and one-half years and seventeen months. The first child died

* Kren,¹ in a recent elaborate article on scleroderma of the tongue and mucous membrane, refers to this condition of the mouth and teeth.

nine years ago of "convulsions," at the age of one year. There was one miscarriage about five years ago. Husband living and well. When first observed, a little over six months ago, the fingers of both hands were cold and livid, the skin thickened and tightly bound down, and slightly ulcerated at some of their tips. There is no history of ischæmia; in cold weather the fingers are always cold and blue. She has been under specific treatment for the past six months, and the circulation has decidedly improved, the finger tips being red and warmer.

The Wassermann test in this case was *negative*, but hæmolysis was inhibited; it did not begin for an hour, and was not completed for over two hours.

Cases V and VI.—(Dr. Trimble's and Dr. Lapowski's.) These two cases were examples of the circumscribed type of the disease, and were unilateral in distribution.

Freda F., was a girl four and one-half years of age, of Russian or Polish-Jew parentage, in whom the disease began nine months ago. The family history is not of importance. The disease affects the front and outer surface of the right thigh, extending in band form almost to the knee, and up over the right side of the abdomen nearly to the level of the umbilicus, with outlying scattered atrophic patches. Several sclerosed bands and patches are present in the right axilla, and around the right shoulder, front and back.

Minnie P., a girl of six years, is also of Russian or Polish-Jew parentage. Family history unimportant. The disease began eight months ago, and consists of a band-like sclerosed area on the left shoulder and arm, extending three inches below the elbow.

The Wassermann test in these two cases was *negative*.

Of the above five cases of diffuse scleroderma, therefore, three gave a strongly positive Wassermann reaction, one was faintly positive, and one negative. The two latter, however, had been under anti-syphilitic treatment, the first for over a year, and the second for six months, a sufficient length of time in each instance to negative the test, had both been cases of undoubted syphilis. The two cases of band-like morphœa type, appear to stand apart from the others, the reaction being negative in both instances.

These seven Wassermann tests were made by three different investigators, and in each case the original Wassermann and the Noguchi modification was done, in some instances more than once, and in all with numerous control experiments.*

* Five of the seven tests were made by Dr. Hideyo Noguchi, of the Rockefeller Institute, one by Dr. E. Castelli, and one by Dr. Kaplan, Pathologist to the Montefiore Home.

While the facts here presented can be little more than suggestive, the possible results of further observations along this line, may well excite our interest. It cannot be easily contradicted, that a positive Wassermann to-day means something, though a negative one may be of little or no consequence; and in connection with a disease like scleroderma, which in recent years, has been shown, clinically and histologically, to be closely allied to definite syphilitic processes, it cannot fail, it seems to me, to have great significance.

Even in syphilis, the percentages of positive Wassermann tests are not so great in certain stages. The most recent figures are those given by Lesser,² and are based upon over two thousand cases tested with hundreds of control cases. He found in the

Primary stage	56 cases.....	69% positive
Early period, (first 4 years after infection—with symptoms)	204 cases.....	91% positive
Early period, without symptoms	118 cases.....	67% positive
Late period, with symptoms	131 cases.....	90% positive
Late period, without symptoms.....	425 cases.....	46% positive
Tabes	61 cases.....	56% positive
Paresis	62 cases.....	100% positive

Lesser's findings in paresis, which were based on sixty-two cases, are, however, considerably at variance with those previously obtained by Wassermann and Plaut,³ who found in forty-one progressive paretics positive reactions in seventy-eight per cent., while Marie and Levaditi⁴ obtained seventy-three per cent. of positive in thirty-nine paretic patients.

Although it is obviously impossible to speak of percentages in connection with the subject under discussion, until a sufficiently large number of cases have been tested, the proportion of positive reactions in the five cases of diffuse symmetrical scleroderma, is certainly great. These cases may readily be considered as a definite type or class by themselves, and it is quite probable that we may get a positive Wassermann only in this class.

The question at once arises, is scleroderma one of those few diseases, other than syphilis, which sometimes react positively to this test, or does syphilis enter into its pathogenesis? There is but little definiteness about this group of diseases, the members of which seem to be diminishing all the time. Blaschko⁵ would restrict them to lepra, frambœsia, sleeping sickness, some severe cases of diabetes, and at times, scarlet fever. Hoehne⁶ mentions trypanosomiasis,

(Landsteiner, Müller and Pötzl), *frambœsia tropica* (Hoffmann-Blumenthal and Bruck), *lepra* (Wechselmann-Meier and Eitner), and a small percentage of scarlet fever cases. His own studies, however, with one hundred and thirty-three cases of the latter, showed a negative reaction in all save two, and these were so faintly positive that they could scarcely be classed as such. With the exception of leprosy, *frambœsia*, and possibly sleeping sickness, the position of the other diseases mentioned in this group is rather doubtful.

There is such an abundance of evidence, on the other hand, both clinically and histologically, linking scleroderma to syphilis, that there would seem little reason to interpret the results of this test, in connection with it, in any other way.

Hutchinson⁷ in 1884 gave us the first intimation that syphilis could produce a peripheral arteritis extending upward, resulting in Raynaud's phenomena. His case was a young man of thirty years with syphilis, who developed this condition in the fingers of one hand.

Subsequently cases were reported by D'Ornellas,⁸ Klotz,⁹ Jacoby,¹⁰ Morton,¹¹ Fordyce,¹² H. Fox,¹³ and others, so that now, it is generally conceded, I think, that many of the cases that were formerly regarded as Raynaud's disease, were in reality, examples of syphilitic arteritis. Most of us have seen such cases, and, as Jacoby says (*loc. cit.*), "The differential diagnosis between them and Raynaud's disease cannot be made in many instances."

The final clinical links in the chain are supplied by the abundant evidence associating Raynaud's disease with scleroderma, one of which links was even recognized by Grasset¹⁴ in 1878, some years before Hutchinson's observation associating Raynaud's disease with syphilis. Grasset's case was a girl of seventeen years, whose disease began with symmetrical Raynaud's phenomena, and in a year invaded the body, upper and lower extremities, and the face. He said "There is no other conclusion, than that there is a close affinity between scleroderma and asphyxia localis."

Favier,¹⁵ in 1880, quoted fourteen cases where scleroderma and Raynaud's disease were associated, and concluded that there was a close relationship between the two affections, and that it was often impossible to separate one from the other.*

Finlayson¹⁶ reports a male case, and states that symmetrical gangrene is often found in scleroderma, which, therefore, "seems

* Quoted from Fox (*loc. cit.*), as Favier's thesis was not accessible.

closely allied to Raynaud's disease." Bouttier¹⁷ reports a similar case, and Hutchinson¹⁸ records a most remarkable series of seven cases, six females and one male, all cases of diffuse scleroderma "closely allied with Raynaud's disease." Similar cases are reported by Lewin and Heller,¹⁹ and Leloir.²⁰ Munro²¹ found thirteen cases of marked scleroderma, all in women, among one hundred and eighty cases of Raynaud's disease he had collected.

Other cases are reported by Herringham,²² Weber,²³ Harbinson,²⁴ and H. Fox.²⁵

It is only by reading through these various reports and comments upon them by the several authors, that one is convinced of the great resemblance these cases bear, one to another. The impression is likewise conveyed of the firm belief that each observer has, in the close relationship between diffuse scleroderma and Raynaud's disease.

Histologically we have further close resemblances between the changes produced by syphilis, and those found in scleroderma.

Taking the initial sclerosis of syphilis, Fordyce²⁶ sums up thus: "There is first, an increase in blood vessels and consecutive changes in their walls; second, cellular infiltration; third, involvement of the connective tissue; fourth, secondary epidermic changes." He says, "Many causes have been assigned to the hardness of the sclerosis, as capillary lymphangitis with suffusion of the neighboring connective tissue, infiltration cells, thickening of the vessel walls, new growth of connective tissue, dryness and rigidity of the cutis, hypertrophy of the collagenous tissue, etc." His studies revealed more cellular and blood vessel changes than fibrosis, so that he considered that Unna's²⁷ theory, that the hardness was due to the collagenous tissue hypertrophy could not explain it, but rather that the aggregated sclerosed vessels, played the chief rôle. Except in degree, he finds no difference in the changes found in all the various specific lesions; he states that both hypertrophy and atrophy of the connective tissue, as a result of vessel changes, do occur.

Fordyce's case²⁸ of symmetrical cutaneous atrophy with syphilis is a most interesting observation in connection with this subject of scleroderma, and in that case, the author found a perivascular infiltration pointing strongly to these structures as the primary seat of the trouble. It seemed not irrational to him to assume that the atrophy of the skin, though not conforming to any known cutaneous lesion of syphilis, might have been induced by the

partial obliteration of the lumen of the vessels, which the histological examination revealed.

Of course the pathological changes in the blood vessels in syphilis have been familiar to us many years, as shown by the studies of Biesiadecki, Auspitz, Kaposi, Neumann, Proksch, Ravogli and hosts of others; the chief differences, as a rule, among observers have been in the manner of their interpretation.

Similarly in scleroderma, the blood vessel and connective tissue changes are perfectly familiar to all. The vessels are surrounded by layers of embryonic cells, with cellular infiltration and hyperplastic changes in the intima and media, causing thickening of their walls and narrowing of the calibre. Not alone the vessels at the seat of the scleroderma are thus affected, but those also at a more or less distance. The overproduction of connective tissue and elastic fibres, or hypertrophy of the pre-existing collagenous tissue, compressing the lymph and vascular channels, are the chief additional changes.

While some few like Unna,²⁹ Kaposi³⁰ and Weber (*loc. cit.*), believe the hypertrophy of the collagenous tissue and stasis of lymph, the primary changes, the majority of observers, as Dinkler,³¹ Lewin and Heller (*loc. cit.*), Krzyształowicz,³² Gaucher,³³ Thibierge,³⁴ Crocker,³⁵ Méry,³⁶ and many others, regard the blood vessel changes as the primary pathologic factor.

Furthermore, the lesions of the cord observed sometimes in scleroderma, as reported by Jacquet,³⁷ the sclerosis of the lateral columns by Chalvert and Luys, and the tabes by Méry (*loc. cit.*), are lesions not in any way different from those produced by syphilis.

If, therefore, as most believe, the vascular changes are primarily the seat of the trouble in scleroderma, it is not improbable, in view of the histological similarity of these changes to those in syphilis, that should the Wassermann observations here recorded, be later confirmed, syphilis may be found to be an ætiological factor in this disease. It is an interesting fact that Thibierge (*loc. cit.*) alone of all authors of text-books, monographs, etc., through which I have searched, mentions syphilis as a possible cause of scleroderma, and this he qualifies by saying that its influence is very doubtful.

Therapeutic observations are too imperfect and too incomplete as yet, to throw any appreciable light upon this question, but it is hoped that these few positive findings may stimulate further research into the mysteries of this most puzzling disease.

It would seem not too much to expect some day, even, to find

the spirochæta pallida in tissues where the active process is going on, and should we thus have in syphilis an occasional cause only of scleroderma, it will be a great help.

My thanks are due to Dr. Noguchi and Dr. A. S. Clark for the laboratory experiments, and to Drs. Bulkley, Lapowski, Leviser, Lustgarten, and Trimble, for the privilege of using their material.

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38 EAST FORTY-NINTH STREET.

DISCUSSION

DR. LOUIS A. DUHRING said he thought there might be a good deal of truth in the view put forth by the reader in regard to the ætiology of certain cases of scleroderma. The great majority of cases, however, he believed were not syphilitic in origin, either directly or indirectly. Scleroderma and allied forms of disease had come under his observation from time to time, and he had learned to distinguish, clinically, between morphœa and scleroderma. While in some instances the symptoms were mixed, there was usually considerable difference in the diseases. In his experience he had met with a number of cases of true or more or less typical morphœa, in none of which were there any evidences of scleroderma, or hide-bound skin, which latter he had always been disposed to regard as generally being a distinct affection in its symptomatology and probably its ætiology. He was not aware that anyone held the view that morphœa, in its usual clinical form, was probably or possibly due to syphilis. In chronic diffuse scleroderma a disease existed in which the arteries were probably principally affected. That fact would go to show that the disease might be due to both syphilitic and non-syphilitic causes, and Dr. Duhring said he was quite willing to admit that in some instances syphilis might be a, or the, causative factor, but that this would not apply to the majority of cases. Personally, he had found that most of such subjects were entirely free from a syphilitic taint. The fact that the disease was often or generally associated with arterial changes had not, he thought, been sufficiently commented upon, and he believed it could be shown that the cardiac system was involved in many cases. He could recall, under his own observation, two fatal cases of diffuse scleroderma in recent years in which the heart was involved. Syphilis was undoubtedly a factor in

many varied cutaneous manifestations—so many indeed that it would be difficult or impossible to enumerate them. Syphilis, as was well known, simulated closely a great many other cutaneous diseases; it was, therefore, not too much to believe that scleroderma might in certain instances be due to syphilis.

DR. HOWARD FOX said that with regard to the positive findings of the Wassermann test in scleroderma he had examined three cases, two of them of the morphœa type and the other a case of localized scleroderma with diffuse idiopathic atrophy. In all of these he had obtained a negative reaction.

Just before leaving home, Dr. Fox said, he had talked with Dr. Noguchi and asked him about his results in scleroderma. Dr. Noguchi stated that up to the present time he had examined five or six cases of this disease, among which he had only obtained a single positive reaction. Furthermore, in that case the positive reaction was not absolute, and he had not been able to make a second examination, as the quantity of serum was insufficient.

DR. M. B. HARTZELL said the fact that scleroderma or morphœa might occur in syphilitic subjects should not be overlooked, and because a positive Wassermann reaction was obtained it did not follow that these conditions were due to syphilis. Just as syphilitic subjects may have psoriasis or eczema, they might also have scleroderma. Furthermore, we should bear in mind that there was no such thing as anatomic specificity, and the same clinical features could result from a variety of causes.

DR. WILLIAM A. PUSEY said it seemed to him that Dr. Whitehouse's suggestion was one of the most interesting facts of the meeting, and highly instructive. We were going outside the subject of his paper when we discussed our concepts regarding the nature of scleroderma. The suggestive fact was that Dr. Whitehouse reported a positive Wassermann reaction in four or five out of seven cases of scleroderma. That was a larger percentage than the ordinary ratio of syphilis would account for.

Dr. Pusey said that while he did not intend to offer any opinion upon the importance of syphilis as an ætiological factor in scleroderma, the findings of the reader of the paper were highly suggestive and worthy of further investigation.

In speaking of the so-called idiopathic atrophy of the skin, Dr. Pusey said that clinically he did not look upon such cases as falling in line with the facts upon which Dr. Whitehouse's findings were based. A year ago he had had under his observation, a woman who presented a beautiful picture of diffuse idiopathic atrophy of the skin, as described by Bronson and later by Fordyce. In this case there was hardening and shrinking of the skin of both legs up to the knees. The condition of the legs was like the picture of Bronson's and Fordyce's cases—the skin thin;

atrophic, bound down below the knees, loose, atrophic and wrinkled over and above the knees, with similar wrinkled atrophy of the skin of the hands and arms. This patient had no syphilitic manifestations at that time, but she returned a few months ago with ulcerating gummata of the legs, which perhaps might tend to confirm the idea suggested by Dr. Whitehouse.

DR. WHITEHOUSE said that in his paper he had tried to make it plain that the observations concerned probably only a certain number of cases of this affection. The same statement could not be applied to Raynaud's disease, of which only a few cases seemed to have a syphilitic basis. The observations recorded would appear to indicate that syphilis was possibly an ætiological factor in a certain proportion of scleroderma cases.

Replying to Dr. Howard Fox, Dr. Whitehouse said he believed that all the tests in scleroderma made by Noguchi, were upon material he had sent him, but some were of the atypical type and others of doubtful diagnosis, while the cases upon which he had based his paper were examples of typical diffuse scleroderma with sclerodactylia. One of the cases, for example, that Noguchi had tested for him, was a case of acrodermatitis atrophicans with scleroderma, a case of Dr. Kingsbury's, published in a recent issue of the *Cutaneous Journal*, while another was a peculiar type of morphœa with lupus erythematosus, a case presented a year ago to the New York Dermatological Society by the speaker. He had obtained a positive reaction, however, in the case of the little girl whose photograph was shown to-night.

Dr. Whitehouse said he had presented these observations for what they were worth; not as anything else. They were suggestive and, in his opinion, worthy of further study.



Fig. 2.



Fig. 1.

THE PSYCHOLOGICAL ASPECT OF DERMATITIS FACTITIA *

By DR. GEORGE PERNET, London, England.

(By Invitation.)

I WOULD have desired to have had time to prepare a paper on this subject, but owing to the short notice this was not possible. I must content myself, therefore, with a few fragmentary remarks on a point of general interest. The psychological aspect of dermatitis factitia, or of feigned eruptions, as they are sometimes called, has for a good many years attracted me and I have collected a variety of notes relating to it. But Dr. Harvey P. Towle of Boston, Mass., has cut the ground from under my feet, as I have quite recently found he had contributed a very good paper on the subject in the *Massachusetts General Hospital Publications*. I take this opportunity of congratulating him.

This class of cutaneous cases is familiar to you all, so I will limit my remarks to one or two of the fair number of instances in which I have met with the condition.

In one young woman, the skin trouble had been taken for herpes. She was sent to me for an opinion by Dr. Stanley Green of Lincoln, and as soon as I saw the lesions which preponderated on the flexor surface of the right arm, I said that the patient was left handed. This turned out to be correct, but I did not see the case again. This patient's medical history has been published in detail in the *Transactions of the Royal Society of Medicine*. She had had several operations performed, including laparotomies and amputations.

In another case, I suggested to the patient that there should be a lesion on the flexor surface of the left arm. Within a month, this came about. Although the case was obviously one of dermatitis factitia, her doctor absolutely refused to accept the diagnosis. That all this is not new to you, I am well aware.

On one occasion, I was asked to go into the country to see a woman with pemphigus foliaceus, but after examining the patient I found it was undoubtedly a case of dermatitis factitia, and not

* Read before the 33d Annual Meeting of the American Dermatological Association, Philadelphia, June 3-5, 1909.

pemphigus foliaceus at all. The suggestion that the patient should come up to London to be under treatment there cured the case, but I was incidentally called a variety of names by the lady bountifuls who danced attendance on this woman.

I mention these cases only to show how difficult it is to disentangle the motive. It is easy enough to paraphrase David in his anger and call all women liars. But although admitting the fact of malingering, I believe in some instances we have to deal with altered personality, such as has been so ably dealt with by Pierre Janet in his notable and classic book on "*L'Automatisme psychologique*" and by your own Morton Prince in his delightful "*Dissociation of a Personality*."

Sometimes patients have appeared to be honestly unable to account for the presence of self-inflicted cutaneous lesions and there is a possibility that though self-inflicted this may have been done while in another state of personality, of which the patient at the moment of cross-examination remembers nothing.

Whenever possible I have examined patients as thoroughly as I could from the point of view of hysterical stigmata, generally finding positive signs in this direction, such as hemi-anæsthesia, and so forth.

I would here remark that Janet has shown the anæsthesia was not a true anæsthesia, but the result of a mental state. Dr. Towle has touched on these points in the paper I have referred to, but a further factor has since been introduced by Babinski with his new conception of hysteria and of hypnotism (pithiatisme, as he calls it), a conception which will have to be reckoned with in endeavors to elucidate the subject upon which I have dwelt in so fragmentary a fashion.

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DISCUSSION.

DR. LOUIS A. DUHRING said he had listened to the reader's remarks with much interest, as they pertained to a subject to which he had over many years given much consideration, and of which he had in practice seen but little. In fact, he had often remarked to professional friends how few cases of this kind he had observed among the thousands of patients that had come under observation during a life's experience. Most of the cases seen were to be classified in the non-factitious group. He could recall certain cases where the eruptions had been regarded by other physicians as factitious in origin, but which were subsequently proven, by careful examination and observation, not to have been so. The experience of different observers apparently varied widely on this point, and he had often wondered why it happened that he had seen so few of the factitious cases.

The psychological phase of the subject, which the reader had emphasized, was one of much interest, and one which deserved more attention than it had hitherto received. First, we should of course determine whether the individual has had anything, in any manner whatsoever, to do with the production of these lesions. This was often difficult, and at times proof was practically impossible, and in regard to this very point errors had, he believed, often been made by competent observers. Some of the cleverest and most cautious diagnosticians had made mistakes in this respect, either on one side or the other of the important question. The tendency, he thought, however, had been for physicians in general to err on the side of giving the patient the credit of artificially producing the lesions. He had examined cases of supposed and so designated artificial eruptions which were subsequently shown to be due to other causes. There had been several such cases under continued observation at the University Hospital which at first were thought to be factitious, but eventually were-proved not to be so, and we should therefore be very cautious before reaching the conclusion that the patient had been instrumental in the voluntary production of these, at times, very singular looking lesions. In this connection he would exclude what was generally and properly termed malingering. One he thought could usually in due time, although perhaps not always, determine whether a lesion had been produced by artificial means or not. In some cases this was easily determined; in others it was not, but when a patient in a hospital could be kept under close observation and restraint for a sufficiently long time, factitious or artificial causes could usually be eliminated.

Dr. Duhring remarked that no explanation was to be offered for the variability in the number of such cases recorded by different physicians. Personally, he had had but a small experience with them compared for example with that of Dr. Pernet. His own observations had

been of quite a different kind, but he desired to emphasize the thought that we should be very slow in doubtful cases to regard peculiar eruptions of the kind as necessarily artificial, and rather to wait until positive proof had been obtained. He recalled cases where such proof was stated by physicians to exist, but upon further investigation such causes did not prove to be substantiated by the evidence. It was an easy matter for the physician to state that such and such an eruption actually or probably was artificial; that it looked like it, and moreover that it could not be of any other origin. Such an attitude was liable to be taken, perhaps, too often by physicians, and it had rather retarded the study of the subject. Such had been his experience.

DR. JAMES C. WHITE said that contrary to the view taken by Dr. Duhring, he believed that these patients should be regarded as responsible for their lesions until they were proven innocent. No certain rule could be laid down regarding them; each case had to be judged on its own merits, and we had to consider all the minute details pertaining to the patient; his history, his character, the appearance of the lesions, their contour and localization, etc. The speaker said he recalled two cases where surgeons cut out a supposed area of gangrene which proved to be purely artificial.

DR. JAMES NEVINS HYDE, after thanking Dr. Pernet for bringing up this interesting subject, said he thought that he and his colleagues had collected notes of about twenty-five similar cases that had come under their personal observation. He was much interested in the suggestion that an altered personality might have something to do with the development of these lesions. The lesions were usually associated with hysterical stigmata and in many instances the artificial character of the lesions was so apparent that in their dermatological features they could not be mistaken for anything else, and this in spite of the patients' denial that they were self-produced. In all his experience, Dr. Hyde said, he had failed to secure a confession of such a fact and there was usually nothing but abuse for the physician who made the diagnosis, instead of a compliment for his ability. The speaker said it had been his experience, in these cases, that the moment a certain lesion was pronounced factitious, it seldom after reappeared.

Serious mistakes were at times made in failing to recognize the true character of these lesions, especially from a surgical standpoint. He could recall a case of amputation of the index finger for supposed gangrene, followed subsequently by a second operation. The patient was a novitiate in a Roman Catholic institution, and she finally admitted to the Mother Superior that she had produced the lesions herself.

DR. FRANCIS J. SHEPHERD said that some years ago he read a paper before this Association in which he reported a number of these cases. There were two kinds of factitious eruption; one, where the

persons produced the eruption in order to avoid work, and the other where they could not help doing it. The diagnosis of the condition, the speaker thought, depended a good deal on the doctor.

Dr. Shepherd said he had prevented many operations on persons who were suffering from some form of factitious eruption. In one case, which was similar to the one referred to by Dr. Pernet, the patient was suffering from various symptoms for the relief of which one laparotomy had already been done and a second was under consideration. So far as he knew, operations on these patients had proven utter failures. These patients had gone from the general surgeon to the gynecologist, and from the latter to the laryngologist or some one else without deriving any benefit whatsoever. The speaker said he believed in the hysterical origin of most of these cases. In dealing with them we should assume a conservative position, and then, perhaps, we could get at the bottom of the matter.

Dr. CHARLES J. WHITE said the contour of the lesions in these cases of factitious dermatitis was usually unlike that of any other form of skin disease. When we had to deal with lesions of the skin which were square in outline, or otherwise of an unusual shape, we had grounds for believing that they were of artificial origin. He had not found the neurologists very helpful in the diagnosis of these cases. Hypnotism had been tried upon them, but the patients did not confess. When told that they were suspected of producing the lesions themselves, they failed to come back, preferring to go to some one else who did not understand them as well.

Dr. MARTIN F. ENGMAN said that in many of these cases there was a strong psycho-sexual element, and he was inclined to agree with the view generally held by neurologists that hysterical stigmata were frequently founded on a sexual basis. He recalled two cases belonging to this group. One was reported by Dr. Schwab, a neurologist, and himself, who, after thoroughly studying the case, came to the conclusion that it had a sexual basis.

Dr. HENRY W. STELWAGON said he had never been able to avoid the conclusion that all the so-called hysterical eruptions were self-produced. By carefully covering the affected parts, the eruption usually promptly disappeared, and upon the suggestion that it would appear elsewhere, the lesions would almost invariably occur at the site suggested.

Dr. HARVEY P. TOWLE said he was firmly convinced with Dr. Pernet, that the psychological aspect of this subject should be more fully appreciated. These patients, as a rule, were exceedingly cunning and skilful, and it was not surprising that the physician, who was working in the dark, should not be able to detect the method by which the eruption was produced. Because we could not find the cause, we could not say that it did not exist. The most serious opposition to over-

come was to induce people to believe that these self-mutilations were possible.

DR. WILLIAM S. GOTTHEIL suggested that the plaster-of-Paris occlusive dressing was an invaluable aid to diagnosis. He could recall three or four cases in the hospital in whom the deception was detected in this way after the most careful watching, day and night, had failed. The use of the plaster was the best way of differentiating these from true dermatoses.

DR. M. B. HARTZELL said he had seen a fair number of these self-produced eruptions, and he had found it very difficult in most instances to detect the patients, as they were extremely cunning in their ways. He could corroborate what Dr. Gottheil said in regard to the value of an occlusive dressing, and he recalled one case where factitious lesions on the forearm rapidly disappeared after the application of a silicate of soda bandage. In another case of extensive necrosis of the skin of the leg which was regarded as of neurotic origin, the patient was detected in the act of substituting the urine of a diabetic patient for her own.

These patients, Dr. Hartzell said, should be looked upon as mentally rather than physically ill. They mutilated themselves because they could not help it.

DR. A. RAVOGLI said he had seen comparatively few of these cases of factitious eruption, and in every instance he had found that the patient had some object in producing them. In one instance the patient was a man who wished to avoid a certain kind of work, and he therefore produced certain lesions on both hands and arms by burning himself with a cigarette. These lesions resembled the blebs of pemphigus.

In another case, a girl in Dr. Crocker's clinic caused an extensive dermatitis of the leg by putting mustard meal in her stocking, and that too was done in order to evade certain duties that were distasteful to her. In a case seen at the City Hospital in Cincinnati, the patient was a hysterical girl who inserted pins under her skin as an act of religious penance. These patients, Dr. Ravogli said, were usually hysterical or mentally deficient.

DR. S. POLLITZER, referring to the lesions produced under the influence of experimental suggestion, said that such had been described by the psychiatrists of the Nancy school in France. These lesions would be produced while the patient was in the hypnotic state, under the suggestion of the experimenter that he was making certain applications to the skin of the subject. Dr. Pollitzer thought those experiments were authentic, and had a distinct bearing on these cases. It was possible that we had two classes of cases to deal with, *i. e.*, those in which the lesions were produced by the patient from without, and those produced through some nervous influence.

DR. GROVER W. WENDE said that, in a case reported a few years ago (*Jour. Cutan. Dis.*, xviii, p. 548), the experiment referred to by Dr. Pollitzer was followed out by Dr. Putnam and himself. They hypnotized the patient and suggested to her that a lesion would appear at the site previously invaded by dermatitis gangrænosa, which was covered by a plaster-of-Paris dressing. On the following day a lesion appeared as indicated, after the usual course, first a bulla, and ending in gangræne, the bandage seemingly undisturbed. This was but a repetition of an experiment performed many times in France. Dr. Wendé believed there were two types of this affection—one self-inflicted, the other due to purely natural causes.

ADIPOSITAS CEREBRALIS.*

By DR. GEORGE PERNET, London, England.

(By invitation.)

I HAVE to thank my friend, Sir Victor Horsley, for the opportunity of showing you sections of skin from a case of tumor of the hypophysis (pituitary body), which was under his care some years ago. The material from which the sections were cut had been for a fairly considerable time in Müller's fluid, so I have stained them by means of hæmatoxylin-eosin and by Van Gieson's method only.

I need not go very fully into details of the case. Suffice it to say that the patient was a single woman, aged twenty-nine, who developed a variety of symptoms, some of which were taken at first for myxædema, for the patient got stout, flabby and apathetic, but thyroid extract did no good. When seen by Sir Victor Horsley the diagnosis of tumor hypophysi was made, owing to the diplopia, lethargy, paresis of the third and seventh nerves on right side, amenorrhœa and optic neuritis (this had been previously noted by Mr. Marcus Gunn). The patient was treated by Sir Victor Horsley and lived for some years.

At the necropsy an adenoma of the pituitary body was found. It had been noted that the skin was coarse and the lips thickened when she first came under the notice of her family doctor.

The sections show in addition to the adipositas a hypertrophic condition of the derma itself, the collagen and elastic tissues being very coarse and thick. The connective tissue framework of the fatty layers is also coarse and hypertrophied.

The condition is therefore more than an adipositas, and is one that affects the integument as a whole. Perhaps the denomination dermo-adipositas cerebialis, or hypophysi, would fit the change better than the name given to it by neurologists.

This is the first time, as far as I am aware, that the skin has been examined. It is for that reason I have thought well to bring the sections for you to see.

* Read before the 33d Annual Meeting of the American Dermatological Association, Philadelphia, June 3-5, 1909.

I append some neurological literature, which may be helpful to others.

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A COMPARATIVE STUDY OF ACRODERMATITIS CHRONICA ATROPHICANS AND DIFFUSE SCLERODERMA, WITH ASSOCIATED MORPHŒA ATROPHICA

J. P. KANOKY, M. D., and R. L. SUTTON, M. D., Kansas City.

CASES of true atrophy of the skin, developing without apparent cause, are extremely rare. As additional information concerning the underlying pathologic conditions is from time to time obtained, sufficient evidence occasionally can be deduced to warrant the recognition of a new and distinct disease, and, in consequence, many cases that formerly were classed among the idiopathic atrophies can now definitely be placed in groups of their own.

In 1902 Herxheimer and Hartmann,¹ of Frankfort on the Main, described an inflammatory disease of the skin, insidious in its onset and chronic in its course, which was followed by marked atrophic changes in the cutaneous structures. Their report was based on the study of twelve cases occurring in their own practice, and fifteen collected from the literature. The affection began, as a rule, on the backs of the fingers of one or both hands. In about one-half of the cases it appeared symmetrically. The skin became thickened and purplish-red in color, and at times there was some wrinkling. The inflamed margin gradually merged into the surrounding sound integument. The subcutaneous tissue did not become adherent. Subjective symptoms usually were absent. In the course of several months or years the affected skin slowly underwent atrophic changes and became pale, thin and wrinkled, resembling crumpled tissue paper. From the hands the process tended to extend upward, either continuously or "by leaps," areas on the forearms, upper arms, neck and face occasionally being attacked. Because of this tendency to primary involvement of the extremities, the authors named the condition "acrodermatitis chronica atrophicans."

From a histopathologic standpoint the disease was clearly divisible into two stages: an initial inflammatory period and a secondary or atrophic one. In the inflammatory stage there was thickening of the keratin layer (hyperkeratosis). The rete and papillæ were still well marked. The nuclei stained poorly. The reticular layer was the seat of considerable cellular infiltration (mainly connective tissue and mast cells), as was also, though in lesser degree,

the papillary layer. The connective tissue cells were slightly œdematous. In the region of the larger vessels the cellular infiltration was liable to be massed at certain points. The vessels themselves showed inflammatory changes. In the infiltrated areas the elastic fibres were decreased in number. In the atrophic stage there was thinning of the rete Malpighii. The basal cells showed considerable pigmentation. The papillæ usually had entirely disappeared. The cellular infiltration was still present in the middle corium, but was quite diffuse except in those instances where the papillæ still persisted. The sweat glands and hair follicles were diminished but not obliterated. As the authors pointed out, the difference between the two stages indicated a progressive process. The connective tissue changes interfered with the functions of the neighboring structures and they, in turn, became atrophic.

In 1905 Herxheimer² reported, in a supplementary communication, eight new observations, and went into a detailed differentiation of this disease from scleroderma. He considered that the two conditions could be confused only in the atrophic stage, as might also be the case with senile atrophy. He continued, "In the inflammatory stage, on the contrary, the differential diagnosis offers no difficulty. Scleroderma certainly also begins with an hypertrophy, yet this is very different from that of an acrodermatitis. Scleroderma does not show, clinically, an inflammation, although there are exceptions to this rule. Furthermore, sclerodermic skin is as hard as a board, and is always bound down to the lower tissues; in acrodermatitis, the skin feels soft and is never bound down." In this article Herxheimer also endeavored, by a careful consideration of two of his later cases, to prove that there are two kinds of acrodermatitis chronica atrophicans, a superficial infiltrating type (such as was seen in his first series) and a tumor-like form. This latter was characterized by the occurrence of one or more firm, nodular, painless, subcutaneous masses in the neighborhood of the affected region. These growths disappeared in the course of time, and the overlying skin, which was of a light or dark red color while the tumor persisted, underwent atrophic changes similar to those observed in the second stage of the superficial type of the disease. None of these growths were examined microscopically. In several recorded instances the affection began at points other than on the elbow or knee. Some cases were complicated by the presence of a scleroderma. In Lesser's³ patient the skin was atrophic at some points and bound down at others, and in Kingsbury's⁴ case, which otherwise was almost a counterpart of those described as

acrodermatitis chronica atrophicans, there was a coexisting circumscribed sclerodérma.

Of the 36 reported cases that we have been able to find, the name of the author, and the sex and age of the patient, when given, are as follows: Herxheimer and Hartmann¹ (5 females, 15, 56, 35, 37, 56; 7 males, 41, 46, 63, 37, 51, 42, 41); Herxheimer² (no data in 6 cases; 2 males, 50, 25); Arndt⁵ (1 case, no data); Baum⁶ (2 females, 34, 38; 1 male, 32); Leven⁷ (1 female, "middle age"); Moller⁸ (1 female, 68); Oppenheim⁹ (1 male, 75); Kingsbury⁴ (1 female, 30). To this list may be added the following cases previously reported as examples of other affections, but which Herxheimer and Hartmann considered as instances of the disease described by them: Pellizari¹⁰ (1 male, 45); Bronson¹¹ (? , 4); Beer¹² (no data); Riedel¹³ (1 female, ?); Kaposi¹⁵ (1 male, ?); Elliot¹⁴ (1 female, 45); Nikolski¹⁶ (1 female, 36); Neumann¹⁷ (1 female, 16; 2 males, 32, 23); Klingmüller¹⁸ (1 male, ?); Pick¹⁹ (2 females, 63, 62); Jadassohn²⁰ (1 female, 23); Krzyształowicz²¹ (1 male, 29).*

During the past year we have had under our care a patient whose condition corresponds very closely with the cases described by Herxheimer and Hartmann in their original communication:

W. C., male, single, cattle-man, forty-six years of age.

FAMILY HISTORY: Father died at the age of seventy. Mother living and well at sixty-nine. Three sisters living and well, one sister died of post-rheumatic endocarditis when eighteen years old. Four brothers living and well; one brother died of scarlet fever when a child.

PERSONAL HISTORY: The patient is a native of Ireland and a resident of Oklahoma. He had an attack of mountain fever when thirty years old and has, at various times, suffered from malaria. In recent years he has been considerably troubled with rheumatism. He has experienced several hard falls, but never has been seriously injured.

PRESENT ILLNESS: The exact date of onset of the present trouble is not known. About 1896 he first noticed a small, scar-like area on the dorsal surface of his left hand. The lesion gradually extended downward over the back of the first finger, and upward toward the forearm. It never was painful nor itchy. Shortly after

* Additional cases recorded since article was written: Bruening (*Berl. klin. Wchnschr.*, 1905, xxxii, p. 1025), one case, male, aged 59 years. Hertmanni ("Beitrag zur Acrodermatitis chronica atrophicans," *Verhandl. d. deutsch. dermat. Gesellsch.*, 1908, p. 290), seven cases; two females (39, 20), five males (68, 22, age not given, 41, 40). Arndt (*Berl. med. Wchnschr.*, 1909, No. 28, p. 1308), one case, 30 years.

this a patch developed on the right side of the neck. A purplish reddening of the skin, with some swelling, had preceded the outbreak in this locality. Since then the spot has gradually increased in size. There is considerable scale formation, especially near the edges, and a little itching. At intervals of several months some point in the affected area becomes sore and tender and, within a few days, the skin breaks and discharges a half-teaspoonful of clear, tenacious fluid. In 1901 a circular lesion, about five centimetres in diameter, developed in front of the left ear, and in 1905 a larger patch gradually appeared on the left side of the neck. This lesion, like the corresponding one on the opposite side, was preceded for several months by a thickened, reddened condition of the integument. Following these, a small area on the right temple became affected, together with a minute, circular patch on the top of the nose. About eighteen months ago the dorsal surface of the right hand became swollen and reddened. There was no accompanying pain. Both the redness and œdema gradually shaded off into the surrounding healthy skin. The thickening slowly disappeared, and was followed by an atrophic patch which developed just back of the first and second knuckles.

EXAMINATION: The patient is a large and powerful man, with gray eyes and dark brown hair. The hair and nails are unaffected. The reflexes are all normal. The thyroid gland can not be palpated. There is slight enlargement of the glands in the right axilla, and also in the left epitrochlear region. The tongue and the mucous membrane of the mouth are normal, and no scars can be seen. The Wassermann test gives a negative result. The urine is light in color, has a specific gravity of 1012, and contains neither sugar, albumin, nor indican. A careful search fails to reveal any abnormal condition of the internal organs. The pulse is 70, and the blood pressure 140 mm. Hg. (Riva-Rocci, recumbent, 14 cm. armlet). There apparently is no stiffness in any of the joints. On the dorsal surface of the left hand, extending from the second phalangeal joint of the first finger upward and slightly outward for a distance of 30 cm., is a well-defined atrophic band, about 5 cm. in width. The skin is dry, thin, smooth and shiny, and is not bound down. Touch perception is slightly impaired. On the back of the right hand are two similar but less extensive areas. The skin covering the arms and chest is unaffected. In the posterior cervical region there are two patches, one on either side, separated by a space of 2 or 3 cm. The right hand patch is a trifle the larger, measuring 6 x 10 cm., and is roughly oblong in shape. The centre is fairly smooth, but

toward the margins the skin is covered with quite large and rather closely adherent scales. The upper borders of both patches are thickened, indurated, and much redder than the lower borders. Where the lesions have extended up into the edge of the hair alopecia has resulted. Touch perception is only slightly diminished, but the areas are much drier than the surrounding normal skin and neither atropine nor heat gives rise to perspiration. Below and in front of the left ear is a smooth, shining, circular patch, 6 cm. in diameter, which is very soft and flexible. In many respects it resembles a scar left by *ulerythema centrifugum*, but the mouths of the sebaceous follicles are not dilated and can not be seen, even with the aid of a hand glass. Exactly in the centre of the tip of the nose is a small, saucer-like patch, which measures 5 cm. across.

HISTOPATHOLOGY: Under cocaine anæsthesia a piece of skin, 1.5 by 3 cm. in size, was removed from the upper right hand corner of the right cervical patch. This was fixed in 10 per cent. formaldehyde solution and, after being passed through alcohol, imbedded in celloidin and a number of sections cut from it. The majority of these were stained with hæmatoxylin-eosin, but orcein and other differential stains also were used. Both the papillary and reticular layers were greatly thinned. No trace of the papillæ remained. The rete mucosum was in many places reduced to a single layer of cells. These were comparatively regular, however, and took the stain fairly well. Scattered throughout the corium were a considerable number of irregular groups of the small, carmine-staining cells so often seen in sections of sclerodermatous tissue. Collagenous degeneration of the intercellular substance was a prominent feature in all of the sections examined. In some of the coil glands there was considerable apparent dilatation of the ducts, with atrophy, and consequent thinning of the surrounding cellular wall, but the excretory canals were considerably lessened in diameter, especially in the upper layers of the skin. In some instances the lumen was completely obliterated before the surface was reached. The sebaceous glands were less affected, although the ducts showed well-marked atrophic changes at times. At one point in the Malpighian layer there was a well-formed, irregularly oval vesicle. The arterial walls were thinner than normal. In the examination of a number of sections thrombi were found twice. The nerve trunks showed no perceptible alteration. Fat cells were absent. The hair follicles were much atrophied. That portion of the epidermis lying between the Malpighian and corneous layers was greatly thinned. Many of the sections showed extensive increase of the stratum corneum, it being

from three to five times as thick as all of the other epithelial layers together.

The differentiation of a disseminated scleroderma in the atrophic stage from diffuse, idiopathic atrophy of the skin is not always an easy matter. The fact that atrophy more frequently follows the œdematous than the hard, infiltrated forms of scleroderma and morphœa increases the tendency to confusion. For example, Crocker²² considers that both Wilson's²³ case of general idiopathic cutaneous atrophy and Schwimmer's²⁴ atrophica cutis universalis probably were atrophic general scleroderma, while Atkinson's²⁵ case of unilateral cutaneous atrophy, which Stelwagon²⁶ classes among the diffuse idiopathic atrophies, Crocker thinks probably was morphœa.

Other conditions which at times simulate scleroderma are brawny, solid œdema, the so-called scorbutic sclerosis, myxœdema, and certain vaso-motor and trophic affections such as Raynaud's disease (Osler²⁷). None of these latter, however, enter into consideration in the following case:

W. A. M., male, insurance director, thirty-eight years of age.

FAMILY HISTORY: Father died of typhoid at sixty. Mother living and well at fifty-nine. Three sisters and two brothers are living, healthy and well. One sister died of summer diarrhœa in infancy, and one brother of diphtheria. The patient has been married ten years, and has three healthy living children (aged 3, 5 and 7 years). His wife has had no miscarriages.

PERSONAL HISTORY: The patient is a native of Mississippi and a resident of Texas. He had an attack of "brain fever" in early childhood, and sustained a severe fall when five years of age. There is no trace of syphilis.

PRESENT ILLNESS: In 1888 he first noticed stiffening of the third and fourth fingers of the right hand. There was a tendency to flexion, and the digits could not be fully extended. This gradually became worse. In the early part of 1892 the upper surface of the tongue and the mucous membrane of the mouth became very tender and inflamed. Later, ulceration occurred, and healing took place very slowly. About one year later a reddened spot appeared in the neighborhood of the left groin. It gradually increased in size and, when about six centimetres in diameter, ulcerated without apparent cause. The ulcer finally healed, but the patch slowly continued to grow larger for about six years, when it became stationary. During 1894 other areas became affected. The first change noted was a reddening, sometimes accompanied by a yellowish coloration, of the skin.

At no time did the patient note any induration of the patches on the trunk. In the course of a few months the affected skin became thin, dry and wrinkled, and a zone of dilated vessels appeared around some of the areas. At about this time the skin on the anterior surfaces of the ankles became affected. The integument assumed a smooth, drawn, glistening appearance, and there was a tendency to adhere to the subcutaneous structures. As a result, the movements of the joints were somewhat interfered with. In November, 1899, the outer end of the atrophic patch on the left ankle became ulcerated. The lesion healed several times, but always broke down again. There never was any bulla formation. The patient never suffered from rheumatoid pains.

EXAMINATION: The patient is an exceptionally intelligent, well-built man, with brown hair and eyes. The hair and nails are normal. The pupils react well, and all of the other reflexes are unimpaired. The thyroid gland can be felt, but seems of normal size. The pulse is 72, and regular. The blood pressure is 130 mm. of mercury. The urine has a specific gravity of 1022, and contains neither sugar nor albumin. The lungs are clear. There is no apparent splenic nor hepatic abnormality. There is no glandular enlargement, although a hard, and somewhat tender nodule can be felt on the outer side of the right shin, midway between the knee and ankle (this disappeared, about three weeks later, and has not returned). The tongue, except for a narrow, wedge-shaped area in the centre, and the palatine and buccal walls are pale, smooth and much drier than normal. The sensations of taste and touch are but slightly impaired. The naso-pharynx and larynx are not affected. The skin covering the right forearm and hand apparently is normal, but there is some atrophy of the thenar muscles of the right thumb. The wrist is a trifle stiff and immobile. The first and second fingers are unaffected, but the ring and little fingers are partly flexed and cannot be fully extended. They are also slightly diminished in size, but there is no atrophy of the bony structures. There is some stiffness in the metacarpo-phalangeal joints of the left hand, otherwise the parts are unaffected. Above and to the outer side of the left nipple is a sunken, elongated, irregularly oval patch (measuring 4 x 8 cm.) of atrophied skin. The surface is yellowish in color, and covered with fine wrinkles. To the touch it is somewhat drier and harsher than the normal integument, although not entirely devoid of oil and moisture. The underlying structures are not adherent. There are no subjective symptoms. The sense of perception is slightly blunted to pin pricks, and also to heat and

cold. The surface is almost dry when the surrounding skin is freely perspiring. Above and to the outer side of the right nipple is a similar patch, only smaller, and below both nipples are corresponding areas. All are soft, fairly flexible, and non-adherent. In the mid-abdominal line, 12 cm. above the umbilicus, is a fifth spot, roughly circular in outline and measuring 8 cm. across. Surrounding it is a well-marked zone of dilated capillaries. Between the umbilicus and the pubes is another, larger though fainter patch and, overlying the right iliac region, is another, roughly triangular in shape and rather soft to the touch. A corresponding spot is located above the outer extremity of Poupart's ligament, on the opposite side. There are several oval, darkly stained areas scattered over the surface of the lower abdomen. Just beneath the right inguinal region is a long, irregular, broken, scar-like patch, 5 or 6 cm. wide, which extends downward and inward for a distance of 30 cm. Near the left groin is a similar area, broader but not so long. Here a perfect network of dilated subcutaneous veins can be seen through the semi-transparent, atrophied skin. There are several small, light-colored patches on the body of the penis. Across the anterior surface of the left ankle, and extending to a point well behind each of the malleoli, is a spur-strap-like band of hard, closely bound down, atrophic skin. The integument is here so tightly drawn that the underlying soft tissues also have become wasted. Partly surrounding the external malleolus is a horse-shoe shaped ulcer with rounded, indurated edges. The right ankle presents a similar band, only not so closely bound down, and there are two small ulcers just back of the internal malleolus.

HISTOPATHOLOGY: Under cocaine anæsthesia a portion of skin measuring one by two centimetres was excised from the upper patch near the left nipple. This was hardened in formaldehyde, passed through alcohol, and imbedded in celloidin, and a large number of serial sections made. Various stains were used, but dependence was placed, for the greater part, upon Van Gieson's picric acid-fuchsin-hæmatoxylin-eosin, and Unna's orcein. In some of the longer sections, which extended from the periphery of the patch to a point well within the atrophic area, it was possible to trace the anatomic changes that had gradually converted the normal cutaneous structures into a thin, dry shell overlying a dense network of connective tissue elements that had undergone collagenous degeneration. Both sebaceous and coil glands were affected, the latter to a greater degree than the former. The excretory ducts showed more marked changes than the glands themselves. Some of the

canals were almost completely obliterated by pressure, a result of the thickening and condensation of the surrounding tissues. The elastic fibres were irregularly distributed. There was considerable hyperplasia of the inner and middle coats of some of the blood vessels, with consequent narrowing of the lumen, in some respects strongly suggestive of an obliterative endarteritis. In several instances occluding thrombi were found. In the neighborhood of the vessels and in the vicinity of the sebaceous and coil glands were large numbers of peculiar, carmine-staining small cells, the presence of which has so often been noted in scleroderma. There was some pigment in the rete. At the inner extremity of the longer sections there was marked shrinkage of the papillary layer, with complete disappearance of the papillæ. There was total absence of fat cells in the atrophied area.

This patient was first referred to one of us (Dr. Kanoky) by Dr. J. E. Tucker, of Lexington, Mo., in 1904. At that time a diagnosis of scleroderma was made, mainly based on the appearance of the ankle bands. In January, 1909, the patient consulted Dr. J. B. Shelmire, of Dallas, Texas, who concurred in the opinion that it was a scleroderma. When the patient was first seen by one of us (Dr. Sutton), in April, 1909, he thought the body patches constituted an anomalous example of idiopathic atrophy of the skin, principally because of the absence of induration prior to their becoming atrophic. To him the occurrence of the scleroderma without a hardening of the skin at some stage of the disease process appeared somewhat paradoxical, and it was not until Dr. Joseph Grindon, of St. Louis, who had an opportunity to examine the patient a few weeks later, pointed out the relationship of the various features that went to make up so unusual a case of mixed scleroderma that he felt convinced of his error.

Dr. William Allen Pusey, of Chicago, and his associate, Dr. Stillins, were kind enough to go thoroughly over the patient in June, 1909, and independently made the diagnosis of a mixed scleroderma. A careful and exhaustive search failed, however, to reveal any definite cause for the changes that had taken place.

A comparative study of the two cases here reported is interesting. Inasmuch as we have not seen the patients of Herxheimer and Hartmann, nor examined microscopical preparations of skin from their cases, our conclusions must be drawn from our observations in the case of W. C., whose condition is clinically almost identical with some of the examples in their series. The gross resemblance between this case and the one of mixed scleroderma is in some respects

quite striking. The light fawn colored patches, clear cut and circular or irregularly oval in outline, are suggestive. The scaliness varies in amount from the perfectly smooth, scar-like surfaces of the lesions below the right groin in the case of W. A. M. and on the left hand of W. C., to the rough, ichthyotic cervical patches in the case of the latter. In both instances the smoother areas are more flexible, and less parchment-like to the touch than the scaly patches. In a search for differential points, however, the main dependence is to be placed on the microscopic evidence. According to Unna,²⁸ the common link which combines all types of scleroderma is the hypertrophy of the collagenous tissue, while the inflammatory appearances, indicated by cellular overgrowth and dilatation of the vessels, are different in form and degree in each. Bearing these facts in mind, a comparison of the histopathologic findings in the two cases is instructive: In both we find the irregular massing of the elastic fibres, the absence of fat cells in the atrophic parts, the decrease in calibre, and sometimes obliteration, of the excretory ducts of the sweat glands, the thinning of the cutaneous structures, the flattening of the papillary layer, and the atrophy of the sebaceous and coil glands. And, in both instances, the changes were brought about by the same cause, pressure, due to the hypertrophy of the collagenous intercellular substance. The irregular distribution of the infiltrating small cells in the first case, and the disparity in the condition of the vessel walls in the two instances are matters of minor importance. The same differences sometimes are noted in microscopic preparations of sclerodermatous tissue obtained from different parts of the body in the same individual. The thickening of the stratum corneum in some instances in the case of W. C. was such as one might expect to find in a section from a scaling morphœa, the histologic features of which we never have seen described. Vesicle formation, which occurred in the cervical patches in this case, has several times been noted by other observers in circumscribed scleroderma (Sherwell, Morrow, Hallopeau).

A careful consideration of the above facts can lead to but one conclusion—this patient, whose malady is clinically and, in most respects, microscopically, identical with the disease described by Herxheimer and Hartmann as *acrodermatitis chronica atrophicans*, is suffering from an œdematous scleroderma of the circumscribed type, the patches being, at this time, in the atrophic stage. As previously stated, we are not in a position to express an opinion on the other cases reported, but Herxheimer's assertion that "sclerodermic skin is as hard as a board" gives one the impression that

the œdematous form of the disease was entirely ignored by them in formulating a diagnosis.

Owing to our present lack of knowledge concerning the ætiology of scleroderma, it is difficult to satisfactorily account for the mode of attack in this particular instance; but, if we take the most generally accepted view, that the affection is the result of a trophoneurosis dependent upon changes in the central nervous system, the explanation is, at least theoretically, much simplified.

We wish to express our indebtedness to Dr. A. E. Hertzler for his assistance in translating some of the obscure passages in the original German text, and to Professor L. B. Miller and Mr. E. S. Ruth for their kindness in making a large number of microscopical preparations for us.

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DESCRIPTION OF PLATES.

1. W. C. Atrophic areas on dorsal surfaces of hands.
2. W. C. Showing patches on left side of face and neck.
3. W. A. M. Showing distribution of morphæa.
4. W. A. M. Left foot, sclerodermic band across instep with ulceration.
5. W. A. M. Sclerodactylia, with muscular atrophy.



Fig. 1.



Fig. 2.



Fig. 3.



Fig. 4.



Fig. 5.

TUBERCULIN INJECTIONS IN THE TREATMENT OF CERTAIN DISEASES OF THE SKIN *

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THE furor of interest and enthusiasm excited by McCall Anderson and others in their reports of cases of lupus vulgaris and other skin tuberculoses treated by the injection of relatively large doses of tuberculin with the object of producing marked local reactions, which reactions, as Anderson says, "are quite necessary for these results," was nipped in the bud by the splendid conclusions of Malcolm Morris, when he wrote in his pleasing style: "Any one who has seen the violent reactions caused by Koch's old tuberculin injected after this method on patches of lupus must have been struck by the change which came over the scene of disease when calm was restored. It looked as though at last Huxley's therapeutic ideal had been realized and it had become possible to introduce into the economy a molecular mechanism which, like a cunningly-contrived torpedo, should find its way to some particular group of living elements and cause an explosion among them, leaving the rest untouched. The hopes thus raised were doomed to speedy disappointment, for it soon proved that the torpedo caused explosions, not only in the cutaneous lesions, but in hidden—it may be unsuspected points—in vital organs like the lungs. Theoretically it was admirable but it was not good war in the therapeutic sense."

But since Trudeau, Denys and Sahli have advocated inoculation with tuberculin, using exceedingly small doses and very gradually increasing them, with the production of neither local nor general reactions in so far as is possible in the treatment of the various forms of tuberculosis, tuberculin has begun again to come into its own; and it is this method I have employed in the use of tuberculin in my cases of tuberculosis of the skin, using the extreme precautions laid down by them, in its administration.

I have also accepted the theory advanced by these men of its workings, it seeming to be clinically and otherwise the most rational; namely, the "toxin immunization" theory, which holds that toxin tolerance or immunization to the chemical poison of the

* Read before the New York Academy of Medicine, April 1. 1909.

tubercle bacillus alone can result from the treatment; that progress in dosage in order to increase the toxin tolerance to the highest point attainable is essential, and the aim to be kept in view in applying the treatment; that the local disease is influenced but secondarily as by any measure which increases the general resistance of the patient, the healing of the tuberculous process taking place under treatment when this is possible, and by the natural physiologic defensive resources of the organism and not by any specific immunity acquired through the mechanism of the injection; as opposed to the "vaccination theory," which claims, through stimulation of all the various defensive resources of the organism, to bring about as a result of the injections a greater or less degree of specific immunity to the action of the tubercle bacillus itself.

As suggested to me by Dr. Trudeau that skin diseases which we believed to be due to the toxin of the tubercle bacillus should respond more readily to tuberculin inoculations than those due to the presence of the tubercle bacillus itself, so I believe from my small experience in the treatment of tuberculosis of the skin by the injection of tuberculin.

I have used the bacillus emulsion for my injections and mostly that from the Trudeau laboratory as prepared for my use by Dr. James Alexander Miller. I have regularly begun with an initial dose of 1/10,000 milligrams, the injections being given in the less sensitive portions of the back, bi-weekly, under the most careful aseptic precautions and systematically increased in series of tenths over periods varying from six weeks to several months—the largest single dose I have worked any patient up to having been one decigram—and on only two occasions do I know of any reaction having resulted from the injection and in one of these it was a question if the disturbance was not due to some intercurrent condition. The patients or their nurses were instructed to make a note of their temperature and feelings both night and morning in order that the injections be temporarily interrupted and again begun with a smaller dose to be gradually increased, on the slightest sign of disturbance.

My cases are as follows:

ERYTHEMA INDURATUM

Case 1.—A slightly cachectic looking girl of thirteen years. Family history, negative as to tuberculosis—had always lived in a healthy country district.

Previous History.—Well until ten years of age when the patient had measles during an epidemic which broke out in a country school, since then the patient has never seemed as strong as formerly, though not ill enough at any time to be confined to her bed.

Present History.—Present trouble began thirteen months ago with firm, deep-seated nodules (not tender) in the calf of her leg, which persisted for several weeks or months; at first increasing in size and later disappearing, but always with the appearance of new nodules. Six months ago nodules began to form on lower part of posterior aspect of other leg. Seven weeks ago one of the nodules considerably increased in size and approaching the surface, broke down, leaving a punched-out looking granulating ulcer. Her doctor said she had had a similar nodule on her left forearm which disappeared in several weeks. When I saw her in consultation she presented a characteristic erythema induratum of her lower legs with one punched-out ulcer the size of a quarter in the lower posterior third of the left leg—she had a few small scars and necrotic granulomata on either loin; was slightly cachectic looking, but presented no other physical signs of tuberculosis on examination. The Calmette reaction with one-half per cent. tuberculin was positive.

The condition had been recognized by her physician almost from the start and for nearly a year she had been treated by fresh air, forced feeding and tonics with little or no result. I advised in addition to these that her physician should give her tuberculin and report to me after a few weeks if things were not going well. I heard nothing from her for three months when I went out to see her and found a decided improvement in both her general and local conditions, the ulcer having healed, and I advised a continuation of her injections.

I saw her again eight and one-half months after the beginning of the treatment, quite free from lesions except one fading granuloma on her right hip, very decidedly improved in her general condition and having taken one decigram of bacillus emulsion for her last injection. These injections were then ordered stopped and I am advised now after almost a year that she seems very well and has had no recurrence.

I began the injections in another typical clinic case, but the patient complained bitterly of the first injection and did not return.

GRANULOMA NECROTICUM

Case 2.—Female twenty years old, born in Ireland.

Family History.—Negative.

Previous History.—Well, except for typhoid seven years ago. When getting well from the fever she first noticed little “pimples” behind her ears which would persist for many days, break down and dry up, leaving scars. A little later they also appeared on forearms and below knees. Two years later in coming to this country most of the lesions disappeared except for an occasional one which would come on her forearm.

One year later lesions began to return on arms, legs and behind ears, which would soften, dry up, and leave little depressed scars and two years ago began to have peculiar firm lumps that were often a little tender on forehead, which latter did not soften, but persisted for several weeks to be replaced by others as they slowly disappeared.

For the past three years there has been very little change in her condition. Her general health has been good and her functions regular and normal. She gave a very positive reaction to the Calmette test and there was no hesitation in pronouncing it a case of granuloma necroticum when I presented her two years ago before the Dermatological Section of the Academy.

Because, however, of the peculiar nodular lesions on the forehead which I now believe were analogous to the nodules in Bazin's erythema induratum, she was put on anti-syphilitic treatment for six months with no relief from her condition. For another nine months she was forced fed, given fats and tonics and various anti-septic lotions and salves were applied locally without apparent change in her condition.

Six months ago I began giving her injections of tuberculin emulsion and after three and one-half months I was able to present her again to the Section showing a decided diminution in the number of lesions, comparatively few new lesions and older lesions drying up, leaving many recently formed scars. Since then she has slowly but perceptibly improved, the nodules on her forehead having almost disappeared and she notices few or no new lesions forming. I believe I am justified in expecting to clear her skin with the exception of the scars, and this after practically a two years' trial of almost every other known method of attacking her disease.

The largest dose she has so far received is seven centigrams owing to the fact that her injections had to be temporarily interrupted and begun again with a reduced dose because of a conjunctivitis, which developed in the same eye in which she had had the

Calmette test made a year ago, that eye having been inflamed off and on for five months after the test was made.

LUPUS ERYTHEMATOSUS

Case 3.—Female, thirty-one years old, born in Ireland.

Family History.—Negative as to tuberculosis.

Present History.—Generally well and strong. Two healthy children.

Two years ago first noticed red patch on left cheek; gradually increased in size with a tendency to crust or scale and to become more marked or red. Upon examination patient presented a patch of lupus erythematosus the size of a silver dollar, circumscribed, irregularly circular and covered in spots with thin grayish crusts, dilated vessels and some atrophy in a portion that had healed. No tubercles in lesions; ophthalmo-reaction negative in both eyes. Injections were begun at 1/10,000 milligrams bacillus emulsion and continued for a period of four and one-half months without any apparent effect. Previous to this treatment patient had improved under X-ray applications but had soon relapsed.

The patient experienced no inconvenience from the tuberculin injections.

LUPUS ERYTHEMATOSUS

Case 4.—Female, twenty-seven years old, American, unmarried.

Family History.—Negative as to tuberculosis.

Present trouble began on nose as slightly scaly red patch on left side about two and one-half years ago. Since then it has gradually spread to the cheeks giving the typical bat-winged lupus erythematosus described in text-books. No evidences of tuberculosis anywhere and the Calmette ophthalmo-test was negative.

Injections of tuberculin were given regularly for four and one-half months without apparent effect and the patient refused to go on with the treatment. It is interesting to note that under treatment for auto-intoxication with indicanuria and insufficient liver action and with only bland soothing applications locally, which latter she had used before without effect, the lesion improved considerably in appearance, having lost much of its congested erythematous look which was a prominent feature, after six weeks under this regime.

LUPUS ERYTHEMATOSUS

Case 5.—Female, twenty-nine, American, unmarried.

Family History.—Negative as to tuberculosis.

Present trouble began two years ago with an erythematous scaly patch on left cheek near nose. Lesion gradually spread across face with a period of quiescence and disseminated lesions began to appear on arms and backs of hands and sides of fingers about six months previous to my seeing her.

The patient presented a superficial disseminated lupus erythematosus without doubt. She was wasted and anæmic looking; could do her work only with the greatest difficulty and complained of indigestion and a poor appetite. Hæmoglobin between seventy and seventy-five per cent.

The Calmette tuberculin test was negative and there were no physical signs that could be elicited indicative of tuberculosis elsewhere in the body.

I regret that no urine analysis was made or other tests to establish a chronic auto-intoxication from which I now believe she was suffering.

She gave no response to tuberculin injections after three months, but had gradually become weak enough to give up her work and go to a hospital when last I heard of her.

LUPUS VULGARIS

Case 6.—Male, thirty-five years old, operator, Hungarian.

Family History.—Negative as to tuberculosis; three brothers and two sisters, living and well. Two healthy children.

Present Trouble.—Three years ago noticed a red papule on his right cheek which has slowly spread at the periphery, at times seeming to cease extending for a few months, only to take on new life with slight swelling, congestion and extension until it had reached the size, when I saw it, of a silver dollar. It then appeared as a typical patch of lupus with a rather unusual amount of erythema; edge raised and made up of numerous apple-jelly-like, soft tubercles and considerable crusting except at the centre, where some atrophy could be made out. The patient seemed to be well-nourished and healthy, though sallow in appearance and gave no other signs of tuberculous lesions.

The Calmette test gave a mild positive reaction. His physician had had some experience in the use of tuberculin and I advised that the patient should go back to his town, live as healthful a life as possible and have injections of tuberculin given every four or

five days, carefully watching for any reaction either local or general. I saw the patient after nine weeks and was surprised at the improvement, that is, at the almost entire absence of erythema and congestion which had been a prominent feature, though the tubercles persisted in the much less reddened edge as they had before. I urged the doctor to continue the injections which were kept up for nineteen weeks longer, seven months in all without any further improvement whatsoever.

I then gave the patient one thirty-five minute X-ray exposure with a medium hard tube at a distance of six inches and sent him home. After a very decided reaction the tubercles sloughed out and healed with one or two exceptions, leaving a smooth dark scar; the remaining tubercles were bored out and touched with pure carbolic and the patient is for the time being, at least, cured.

I attribute the improvement at first to the fact that the excessive congestion and erythema were due in part to the effect of the toxins of the tubercle bacilli which were in the lesions and that as his hyper-susceptibility to these toxins was diminished by the injections, this factor in the cause of his lesion was relieved and therefore the improvement. Further, we could not have gone under this method had he been injected for a year, I believe, and so they were discontinued.

LUPUS VULGARIS

Case 7.—Female, fifty-four years old, of German extraction.
Family History.—Indefinite.

Personal History.—Negative except for present trouble, which began two years ago as a brown spot with tingling on antitragus of right ear. Had slowly spread until lobe of ear and portion of cheek in front were involved in a typical reddish-brown and slightly swollen condition with numerous soft apple-jelly-like tubercles scattered over it.

The Calmette test was not made, having been forgotten until after the injections were begun, and then of course she would have responded anyhow.

Injections of Parke, Davis and Company's ampullæ were made over a period of five months without change in lesion except after a slight reaction had been produced by a mistake in the size of the dose given. There was a temporary improvement after the reaction had cooled down and I was tempted to adopt the reaction method but was fearful of some undiscovered tuberculous lesion at some

other point that might be broken down with perhaps disastrous results I might regret, and so abandoned the idea.

SCROFULODERMIA

Case 8.—Male child, aged seven, of well-to-do parents brought to me by a surgeon in the Presbyterian Hospital Clinic.

The child came to him with a tuberculous ulcer in front of right ear which from the history began from a broken down gland. The child had been under the care of another surgeon for five months, during which time the lesion had been curetted, cauterized and treated with wet dressings and stimulating and soothing salves. Having recognized the nature of the lesion and obtained a positive von Pirquet reaction, his doctor brought the patient to me for tuberculin injections which were begun at 1/20,000 of a milligram. Locally the lesion was only kept surgically clean. Seventeen tuberculin injections were given in all and then discontinued, the lesion having practically healed after nine weeks. The largest dose given was 8/1000 milligrams and the patient suffered no inconvenience except from the slight discomfort of the needle.

Injections were begun in several other undoubted cases of skin tuberculosis and in one other case of lupus erythematosus, but the patients failed to return after one or a relatively few inoculations, and reports of them would have little bearing on the subject in hand.

Whitfield¹ reports a cure of a case of erythema induratum and another case much improved, and concludes that its use in this condition is regularly followed by improvement.

White² reports a case of erythema induratum of three years' standing healed and no returns after three months.

Klingmüller³ reports a case of lichen scrofulosorum disappearing under small doses of tuberculin and also reports a case apparently produced along with a condition analogous to erythema induratum under the injections of relatively large doses of tuberculin.

Delbanco¹⁰ claims to have healed a case of granuloma necroticum and Blaschko¹¹ says that in his experience tuberculin alone can cure granuloma necroticum and lichen scrofulosorum.

For many years there has been a great difference of opinion as to the ætiology of lupus erythematosus, the French school holding that it is a tuberculide, but I believe this not to be the case, as seems to me to be proven by the reports of Klingmüller,³ MacLeod,⁴

Radcliffe Crocker, Schamberg,⁵ Sequeira,⁶ Beruch,⁷ Kingsbury,⁸ and others, of autopsies, tuberculin tests and tuberculin therapy. The only case in which I can find improvement reported is Schamberg's,⁹ but the case is set down as atypical at the very beginning of his presentation. I have myself made the Calmette test in nine cases of lupus erythematosus and in no case have I obtained a positive reaction.

That tuberculin injections produce a specific and profound reaction in lupus vulgaris with necrosis and sloughing of the tubercles followed by improvement in the lesion after the explosion is passed we must believe from the numerous cases reported improved and even cured under the reaction method. But the fact that such results can only be attained at the expense of pronounced local reaction along with which, quite regularly or at least frequently, constitutional reactions and at any time an explosion of a tuberculous focus in some vital or less resistant tissue of the body may occur, should contraindicate the adoption of such a method. Neisser,¹² McCall Anderson,¹³ Williams,¹⁴ Lassueur,¹⁵ Darier,¹⁶ and Bandelier,¹⁷ however, have used this method and seem to be willing to recommend it in the treatment of this persistent condition. Under the other and safer method of administration little seems to have been accomplished in the treatment of lupus, but Trudeau, Wright,¹⁸ von Eberts,¹⁹ Low,²⁰ Evans,²¹ Schmitt,²² Whitfield,¹ and Blaschko¹¹ believe to have seen some improvement in certain selected cases.

No cases have been reported of its use in the so-called lupus pernio. It is a significant fact, however, that Klingmüller³ and others have failed to get a positive tuberculin reaction in this condition.

In the scrofulodermias and particularly in tuberculous ulcerations, cures are reported by Schmitt,²² Blaschko,¹¹ Whitfield,¹ Low,²⁰ and Wright,¹⁸ and its use in these conditions is recommended by them.

CONCLUSIONS

1. That tuberculin has some place in our dermatological therapeutic armamentarium, but that the reaction method of administering it is dangerous and unjustifiable.

2. That it seems to have therapeutic value and indirectly may even be a curative agent in erythema induratum, granuloma necroticum, lichen scrofulosorum and their clinical variations, classed under the heading of tuberculides, and due to the toxins of the tubercle bacillus.

3. That lupus erythematosus and the so-called lupus pernio are probably not tuberculous conditions and would not be benefited by injections of tuberculin.

4. That in only a few selected cases with considerable erythema and congestion, probably due in part to the additional effect of the tuberculous toxins, are tuberculin injections of value in lupus vulgaris and its allied so-called true tuberculoses of the skin, due to the presence of the tubercle bacillus itself, as administered under this safer method.

5. That in this latter class of cases, Sanger's ²³ reports of cures by inunctions of the Moro tuberculin salve into the lesion itself, producing specific local reaction without constitutional disturbance, warrant its trial.

6. That in scrofulodermias, and particularly tuberculous ulcerations even though tubercle bacilli be present, tuberculin injections seem to be followed by improvement when used along with hygienic and local measures.

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REVIEW of DERMATOLOGY AND SYPHILIS

Under the charge of GEORGE M. MacKEE, M. D.

BULLOUS DISEASES

By FRANK CROZER KNOWLES, M. D.

A Case of Pemphigus of Neumann without Vegetations. L. A. LONGIN.
(*Ann. de dermat. et de syph.*, 1909, x, No. 1, p. 49).

The patient was sixty-nine years of age, and from her history had always been healthy and unusually vigorous. The condition first started with pain in the mouth, which was at first thought to be due to a simple stomatitis or some derangement of the teeth. Two or three days later bullæ appeared around the circumference of the mouth; the eruption continued to develop in this area for the first fifteen days. The outbreak, after the period mentioned, became generalized; disseminated over the entire body. The eruption was accompanied by extreme pain, burning and itching; the slightest movement caused great suffering. The lesions were most marked in the neighborhood of the eyes, the nose and the mouth. There was some ulceration of the margins of the lips, apparently secondary to rupture of the lesions. The oral and the nasal cavities were attacked. There were tremendous bullæ present; one covered the entire surface of the scalp. There were no distinct vegetations, but there was a tendency for the edges of the ulcerations to be somewhat roughened. The patient, after only a few days' illness, became markedly debilitated and emaciated. The eruption appeared in successive crops, arising from the sound skin, and suggested somewhat pemphigus foliaceus. There was a fatal termination in seventy days.

Notes on a Case of Pemphigus in a Nonagenarian: Recovery. JAMES G. GLOVER. (*Lancet*, 1909, clxvi., p. 974).

The patient, a male of ninety years, had had a very strenuous and healthy life. There had been several attacks of epistaxis during the last five or six years; and at times eczematous patches on the arms and legs. Bullæ first appeared on the outer side of the left forearm and the

left thigh, and developed, only once or twice a week, for nearly six months; following this period the eruption became more generalized. There was some tendency for the lesions to become confluent on the extremities and the scrotum. Itching was intense. Improvement, according to the author, seemed to start after giving moderate doses of morphine sulphate at night. Fowler's solution was given throughout the attack.

A Case of Pemphigus Vegetans. H. MACCORMAC. (*Brit. Jour. Dermat.*, 1908, xx, p. 277).

The patient was a married woman of twenty-three years, who developed the disease upon the genitalia, nine days after the birth of her second child. The disease ran a course of four months, ending fatally. The general cutaneous surface and the mucous membranes of the mouth and the vagina were attacked. The skin eruption became progressively worse until the fatal termination; vegetating tendencies were noted on the areas where bullæ had broken. Bacteriological examinations of the contents of the lesions were made; the first showed a pure culture of streptococci; the next, three weeks later, a mixed culture of streptococci, and a Gram-negative bacillus and other cocci; finally, two days before death, no growth of micro-organisms was obtained. The author suggested the possibility of the streptococcus being causal in the case, particularly from the history of a recent confinement, a purulent vaginal discharge and the fact that the original outbreak occurred in the vagina. The autopsy showed nothing particularly distinctive.

Description of a Diplococcus Found in the Lesions of a Severe Chronic Pemphigoid Disease in West Africa. F. WELLMAN. (*Jour. Trop. Med.*, 1907, x, p. 249).

The case described resembles somewhat pemphigus foliaceus; the lesions consisting of vesicles and bullæ. The patient was ten years of age. Cultures were taken from the vesicles and also the broken lesions, and exhibited a countless number of diplococci. Various media were used, gelatine, agar, glycerine-agar, glucose-agar, litmus-agar, bouillon, serum, milk, and potatoes. These diplococci were large as compared to most micrococci, easily stained and dark in contrast with other organisms. The diplo-forms were most noted in milk and on goat serum. The author considers that this organism is without doubt causal, as typical vesicles were produced on a healthy native and also on himself by superficial inoculations with pure cultures. Organisms found by Clegg and Wherry, Alenquist, Matzenaur and Leiner are also mentioned.

Septicaemia and Chronic Pemphigus Caused by Bacillus Pyocyaneus. G. PETGES and H. BICHELONNE. (*Ann. de dermat. et de syph.*, 1908, p. 417).

At the age of twenty and one-half years the patient, who by oc-

cupation was a soldier, developed red plaques on the anterior surface of the thorax, on the level of the sternum. These lesions were, in a short time, followed by bullæ. Pruritus was marked, the cutaneous surface being excoriated from scratching; crusts were formed with some serous oozing. The condition became progressively worse, both in the size of the bullæ, and in the general distribution of the lesions. Severe fresh outbreaks occurred, noticeably during the night; burning and at times pain were noted. The itching was noticed chiefly during the night. After the disease had run a somewhat benign course, with constant recurrences, for one and one-half years, the outbreaks became more severe, the constitutional symptoms of septicæmia developed and the patient died. Late in the disease large abscesses formed, which showed blue pus on incision; chemical tests proved that the color was due to pyocyanin. The urine also was of a bluish-green color. During the life of the patient, blood was taken from the cephalic vein and gave pure cultures of the bacillus pyocyaneus; blood obtained by piercing the skin gave the bacillus pyocyaneus and the staphylococcus. The blood examined post-mortem exhibited the bacillus pyocyaneus. According to the authors, it is the first time that the bacillus of Gessard has been found in the blood of a patient attacked by this condition. It has been discovered by various experimenters that the soluble products of pyocyaneus are composed of three groups of substances, each giving a different chemical reaction. The third group has a special action on the vaso-motor apparatus of the nervous system; the perturbation of the vaso-dilators causing the cutaneous symptoms. The authors conclude that the bacillus pyocyaneus may be pathogenic for man, producing general disease with or without cutaneous lesions, and diseases of the skin of apparently external origin. It may be ætiologic in the production of chronic bullous pemphigus and pemphigus vegetans.

A Case of Vegetating Pemphigus. W. Fox. (*Brit. Jour. Dermat.*, 1908, xx, p. 181).

The author first refers to the various cases of pemphigus, reported as benign, which years afterward end fatally with a relapse of the eruption. The patient was a woman of fifty-seven years; the past history was negative as to a possible cause. The eruption was bullous in character, arising from the sound skin, localized at first to the neck, some weeks later becoming generalized, excepting the arms and the head. There was an offensive odor from the crusted lesions and also from decayed teeth in the mouth. Some weeks after the start of the eruption vesicles appeared on the tongue. Seven months after the first appearance of the disease vegetations started to appear, after the breaking of bullæ, in the groins and the axillæ. When these warty growths developed there was a distinct improvement in the general condition of the patient; the bullæ disappeared from the skin, leaving only small pig-

mented areas. During the last two years the patient had been in good condition, only an occasional vesicle or bulla appearing. The internal organs were found normal during the attack and gastro-intestinal symptoms were absent. Numerous eosinophiles were found in the contents of the lesions. A biopsy was made of the warty growths, but nothing distinctive of the disease was discovered; the condition resembled somewhat that seen in sections of the so-called gonorrhœal warts. There was an entire absence of sensory symptoms. The most favorable result was obtained by using a combination of liquor arsenicalis, in ascending doses, with ten grains of sodium iodide.

Pemphigus in Children. J. L. BUNCH. (*Brit. Jour. Dermat.*, 1908, xx, p. 336).

Bunch discusses in his paper the acute and chronic or recurrent forms of pemphigus vulgaris. The case described occurred in a girl of seven years. The extremities and trunk were attacked by bullæ, from a pea to a pigeon's-egg in size; the face was only sparsely involved. The lesions mostly arose from the sound skin. The mucous membrane of the mouth was attacked. Pure cultures of streptococci were found in the fluid from the lesions; this organism proved to be the streptococcus salivarius, a comparatively non-virulent type of the streptococcus. Cultures of staphylococcus aureus were also obtained. Streptococcic injections were used, with the result that the patient immediately started to convalesce. Other cases are referred to in which various organisms, chiefly the streptococcus, were found in the bullæ. The various theories of causation were discussed. The histological changes in the skin were also described.

Epidermolysis Bullosa, Three Cases: With History of the Disease in Four Generations of the Same Family. L. B. CANE. (*Brit. Med. Jour.*, 1909, i, p. 1114).

The author obtained a definite history of bullæ lasting more or less throughout life in six persons, representing four generations in direct descent, of whom three are alive and form the basis of the paper. The exact family record could be traced back for nearly two hundred years, but no history of bullous eruptions could be discovered in the two earlier generations. In the third generation only one member was definitely known to have had the persistent tendency to the formation of traumatic bullæ, and from him this weakness in the skin was transmitted to the cases now recorded. The disease was twice transmitted from the father, once by the mother, and four males and two females were attacked. The order of birth of the children was apparently not causal in the production of the disease. The cases seen by the author occurred in a mother and her two sons. The mother stated that the bullous tendency had been less since her marriage, particularly during pregnancy.

The three cases, that the author personally saw, had the following points in common: The mucous membranes were not involved; the condition was always worse in warm, moist weather; at times there was marked hyperidrosis, especially of the feet; the teeth were fairly good, quite up to the average both in number and quality; the eyes were normal; the vascular and urinary systems were negative. Various remedies were tried with practically no result.

Biological Investigations in Pemphigus Vulgaris. C. BRUCK. (*Arch. f. Dermat, u. Syph.*, 1908, xciii, p. 371).

Biological examinations were made in two cases; the first, a woman of forty-five years who had had pemphigus vulgaris for five months, the bullæ being cherry- to walnut-size. The second was fifty-one and gave the history of having had the disease, intermittently, for five years, having intervals of freedom from the eruption for weeks at a time. The possibility of antigen in the serum from the pemphigus lesions, together with an antibody circulating in the blood, was investigated by the author, but the test with blood serum proved negative. The fluid from the pemphigus bullæ contained, however, a lysin which acted somewhat strongly towards human blood. After careful investigation it was discovered that the sterile serum from the lesions of the pemphigus cases contained a strong streptococcus virus. The one patient who had had no eruption for two weeks was treated by the von Pirquet method, with this sterile serum from the other case. After some hours, swelling occurred in the excoriated area, followed by the development of a hazelnut-sized bulla; in the course of the same and the next day, sparsely distributed bullæ appeared on the cutaneous surface; these disappeared in the next three days. The experiment was again tried after five days with the same result. The solutions used on the skin as controls produced no eruption. The author considers, as the result of his experiments, that bacterial toxins may be found in the serum from the lesions of pemphigus; that anti-streptococcic serum may prove useful in cases in which the streptococcus is found; and that probably thermo-labile toxins in the skin may be favorably influenced by thermo-therapy.

NOTICE.

RESOLUTIONS OF THE BOSTON DERMATOLOGICAL CLUB ON THE DEATH OF DR. HENRY RADCLIFFE-CROCKER.

At the first meeting of the season, of the Boston Dermatological Club, October 26, 1909, the following resolutions were passed:

That we learn with sincere regret of the untimely death of Dr. Henry Radcliffe-Crocker, a man who was especially endeared to us by his gentle and cordial bearing towards his American colleagues, both in his ever-hospitable home and at all dermatological gatherings in Europe and the United States. We shall sadly miss his inspiring presence, his discerning judgment, profound knowledge, and his fearless and precise opinions at future congresses. Fortunately his valuable writings remain a monument to his fame as one of the preëminent dermatologists of his age.

That we transmit these expressions of our sorrow and sympathy to his family and to the Dermatological Section of the Royal Society of Medicine, of which he was the first and illustrious President.

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